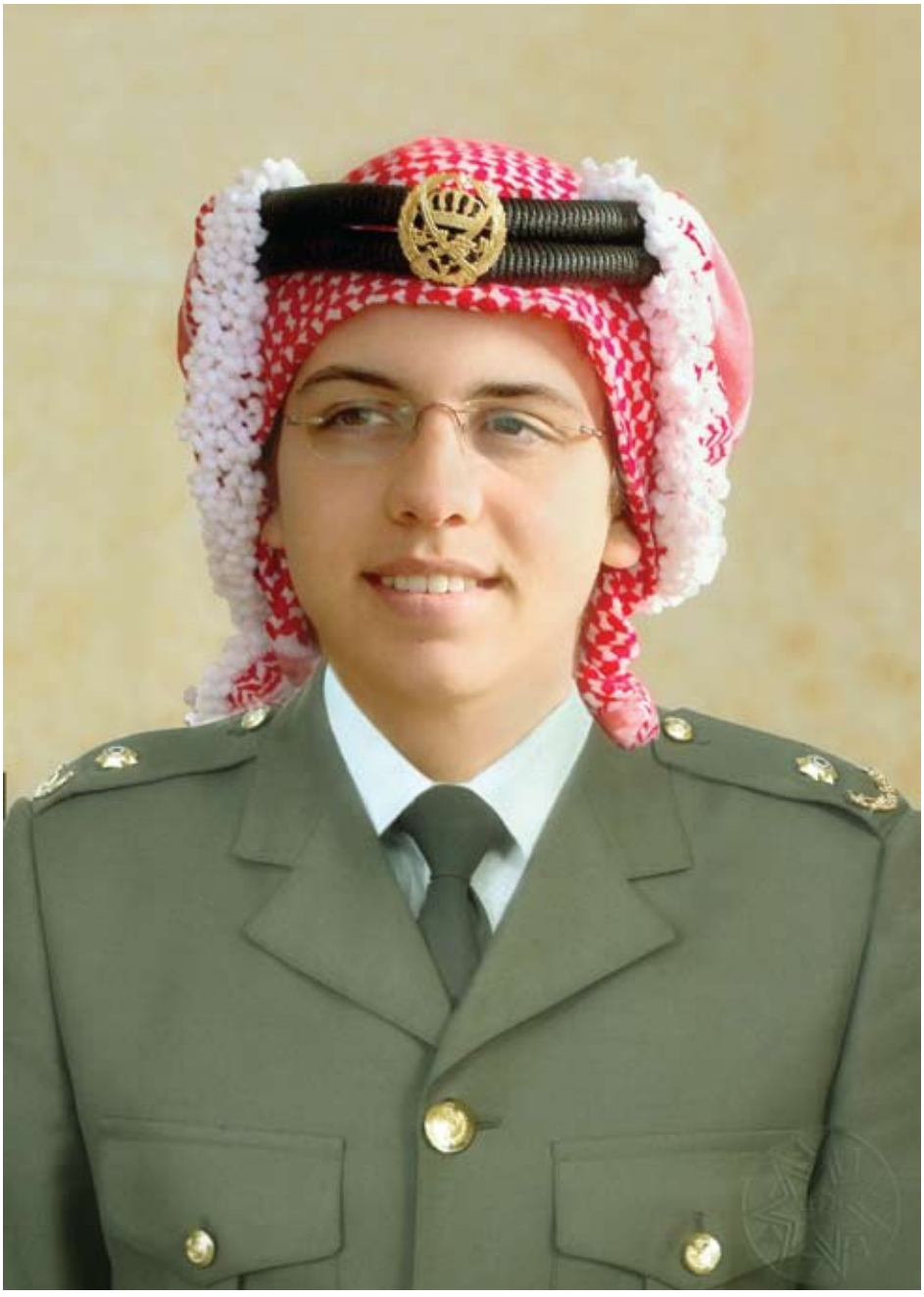
His Majesty

King Abdullah II Ibn Al-Hussein



His Royal Highness

Crown Prince Al-Hussein Bin Abdullah II

Contents

Queen Rania Pediatric Hospital

Inaugurated by their Majesties
King Abdullah II Ibn Al-Hussein
&
Queen Rania Al-Abdullah
Feb. 2010

Collaboration

Royal College of Physicians
Setting higher medical standards

The Royal College of Surgeons of England

WORLD FEDERATION OF HEMOPHILIA

AOCMF

AOSPINE

SURGICAL TRAVELERS

President's Welcome

It gives us great pleasure to welcome you to the **5th International Conference of the Royal Medical Services** to be held at **King Hussein Bin Talal Convention Center - Dead Sea, Jordan** in the period of **3-6 May 2010**. This Convention Center located in the lowest point on earth is the ultimate meeting venue and has hosted major world events like the World Economic Forum and the Nobel Laureates meeting. We are lucky to host our RMS Conference for the first time in this location. It will be attended by more than 3500 participants, both local and regional in the fields of Medicine, Dentistry, Pharmacy, Nursing, and Allied Health Professions.

The Royal Medical Services Conferences are held once every two years with participation of more than 80 Guest Speakers from all over the world from different specialties and backgrounds. This provides a unique and broad forum for discussion of multidisciplinary topics that bridge the divide between specialties.

Some of you will have attended this conference before and your willingness to return is a testimony to how much you enjoyed your previous visit. For those coming to Jordan for the first time, I am sure it will not be your last. We hope to build bridges, establish new contacts, make new friends and renew old friendships.

I would like to take this opportunity to thank the International Organizations and Societies for actively participating in this conference. In particular, we would like to thank the **Royal College of Surgeons of England** for holding the TtT and BSS courses at KHMC and participating in the surgical training symposium. Also, we welcome the delegation from the **Royal College of Physicians** for holding a symposium on clinical guidelines. We thank the **World Federation of Hemophilia** for their continued support of Jordan. The participation of **AO Spine** and **AO CMF** with lectures and scientific workshops is much appreciated. We would also like to extend our gratitude to the **Surgical Travelers** for taking the time out of their holiday to actively engage in the scientific program.
I would also like to thank our many Sponsors for contributing generously to the conference whether by taking a part in the Medical Exhibition or by sponsoring Guest Speakers for the many workshops at hand.

And last but not least, we must not forget the valuable contribution made by recently retired colleagues of ours who where very much involved in the planning and preparation for this conference.

The conference is very rich in up-to-date scientific material spread over a 3 day period. We encourage the participants to attend over 33 workshops on the fringe of the conference whether at King Hussein Bin Talal Convention Center or King Hussein Medical Center, including Live Surgery Transmission from KHMC to the Dead sea. All the workshops (with the exception of two) are free to all registered participants.

The Medical Evacuation Drill in the heart of the Jordanian desert on May 6th is open to all registrants and should be an exciting event to witness the capabilities of RMS in disaster situations and will probably be a new experience to many of our fellow guests especially as 'Mansaf', the traditional Jordanian dish, will be served afterwards.

We hope you enjoy your stay at the Dead Sea and get a chance to explore some of the many wonders of Jordan. We are confident that your stay in Jordan will be a memorable scientific & social experience.

Conference President
Director General of the Royal Medical Services
Major General Dr Abdellatif Woreikat

Scientific Program in Brief

KHBTCC

SESSION	TIME	SEA FLOOR A1 Dead Sea 1	SEA FLOOR A2 Dead Sea 2	SEA FLOOR B Mount Nebo 1	SEA FLOOR C Mount Nebo 2	SEA FLOOR D Petra 1	SEA FLOOR E Petra 2	GROUND FLOOR F Wadi Rum 1	GROUND FLOOR G Wadi Rum 2	GROUND FLOOR H Mou'ta	GROUND FLOOR I Yarmouk	FIRST FLOOR J Harraneh 1	FIRST FLOOR K Harraneh 2
Monday 3 May													
1	9:00 - 11:00							W22 Hepatitis	W27 OMF Surg	W04 AO Spine	W28 Endodon	W30 Pharma Economics	W26 Orthodon
2	11:30 - 13:00												
	13:00 - 14:00							Lunch				Lunch	
3	14:00 - 16:00								W03 AO CMF	W04 AO Spine		W30 Pharma Economics	
	18:00	Opening Ceremony - Dead Sea Hall											
Tuesday 4 May													
1	9:00 - 11:00	Nursing		Endocrine & Cardiology	ENT	S3 World Federation of Hemophilia	Orthopedics		S2 Surg Training	Neuro Rehab	Ophth & Derma	W31 Clinical Pharma	Dentistry
2	11:30 - 13:30			ER & Cardiology	ENT	Ped Onco	Ortho Spine	W09 Live Surg Transmission Lap Colorectal	Derma - Plast	Neuro Rehab	Ped Surg		W29 Dent Implants
	13:30 - 15:00	Lunch		S4 Recent Advances in the Management of Breast Cancer (Sponsored by Roche) Hall D					Lunch			Lunch	
3	15:00 - 17:00	Nursing		Anesthesia	ENT	Pediatrics	Ortho & Recon		S1 RCP	Path	Vasc Surg	W31 Clinical Pharma	W29 Dent Implants
4	17:30 - 19:00			Cardiology	Anesthesia	Ped Pulmono	Ortho & Rehab	Gen Surg	Psych	Path	Ped Surg		
Wednesday 5 May													
1	9:00 - 11:00	Dentistry	Pharmacy	Immuno	GI	Ophth	Obs & Gyn	Comm Med	Surg Travelers	Urology	Pulmono	Ortho	Nursing
2	11:30 - 13:30			Rheum Immuno	Nephrology	Ophth	Obs & Gyn	Military Medicine	Surg Travelers	Urology	Neurosurg	W05 Ortho DVR	W32 Nurs EB Practice
	13:30 - 15:00	Lunch		S5 Optimizing RAAS Suppression: Aliskiren "The First Direct Renin Inhibitor" (Sponsored by Novartis) Hall C					Lunch			Lunch	
3	15:00 - 17:00	Dentistry	Pharmacy	Rheum Immuno	GI & Nephrology	Ped Onco	Obs & Gyn	Comm Med	Gen Surg	Neurosurg Plast	Thoracic Surg	W06 Ortho ACL	W32 Nurs Magnet Hosp
4	17:30 - 18:30						Obs & Gyn	Prev Med	Gen Surg Video	Gen Surg			
Thursday 6 May													
	10:00 - 11:30	**Disaster Management Exercise:**						**Medical Evacuation Drill - Zarqa**					

Symposia

Number	Specialty	Title	Guest	Liaison Officer	Date	Time	Hall	Venue
S1	Quality Assurance & Health Services	Setting standards in Medicine, Clinical Guidelines Development (Royal College of Physicians)	Matthew Foster MD (UK) Jonathan Potter MD (UK) Rhona Buckingham MD (UK)	Dr Alaa Al-Hirsh	4 May	11:30 -13:30	Hall G (Wadi Rum Hall 2)	KHBTCC
S2	Surgical Training	Surgical Training Symposium (in collaboration with RCSEng)	John Weston Underwood MD (UK) Mr J W Rodney Peyton MD (UK) Iain Mackay MD (UK)	Dr Fawwaz Khammash	4 May	09:00 - 11:00	Hall G (Wadi Rum Hall 2)	KHBTCC
S3	Hemophilia	World Federation of Hemophilia	World Federation of Hemophilia Assad Haffar MD (Canada) Bernadette Garvey MD (Canada) Flora Peyvandi MD (Italy)	Dr Issam Haddadin	4 May	09:00 - 11:00	Hall D (Petra Hall 1)	KHBTCC
S4	Oncology	Recent Advances in the Management of Breast Cancer (Lunch Time Symposium Sponsors by Roche)	Paul Ellis MD (UK)	Dr Fayeq Mdanant	4 May	14:00 - 15:00	Hall D (Petra Hall 1)	KHBTCC
S5	Medicine	Optimizing RAAS Suppression: Aliskiren "The First Direct Renin Inhibitor" (Lunch Time Symposium Sponsored by Novartis)	Nabil Akash MD (Jordan)	Dr Nabil Akash	5 May	14:00 - 15:00	Hall C (Mount Nebo Hall 2)	KHBTCC

Workshops

Number	Specialty	Title	Guest	Liaison Officer	Date	Time	Hall	Venue
W01*	Basic Surgical Training	Training the Trainers Course (TtT)	Royal College of Surgeons (UK)	Dr Fawwaz Khammash	30 Apr	Whole Day	BEI	KHMC
W02**	Basic Surgical Training	Basic Surgical Skills Course (BSS)	Royal College of Surgeons (UK)	Dr Fawwaz Khammash	1 - 3 May	Whole Day	BEI	KHMC
W03	AO CMF	Orthognathic Surgery - From Diagnosis to Planning to the Execution of the Treatment Plan	Nick Katsikeris MD (Greece)	Dr Khaldoun Haddadin	3 May	14:00 - 16:00	Hall G (Wadi Rum Hall 2)	KHBTCC
W04	AO Spine	Scoliosis	AbdulRazzaq Alobaid (Kuwait) Michael Rauschmann (Germany)	Dr Firas Husban	3 May	09:00 - 16:00	Hall H (Mou'ta Lounge)	KHBTCC
W05	Orthopedic	Distal Volar Plates – DVR & Polyaxial Plates	Alexandre Nehme (Lebanon)	Dr Isam Dahabra	5 May	11:30 - 13:30	Hall J (Al-Harraneh 1)	KHBTCC
W06	Orthopedic	ACL Repair	Alexandre Nehme (Lebanon)	Dr Mahmoud Odat	5 May	15:00 - 18:30	Hall J (Al-Harraneh 1)	KHBTCC
W07***	General Surgery	Laparoscopic Liver Resection	Ameet Patel (UK)	Dr Salah Halaseh	3 May	Whole Day	PHA (Live Tx from OR)	KHMC
W08 ***	General Surgery	Laparoscopic Hernia Repair	Tim Tollens (Belgium)	Dr Amer Amireh	3 May	Whole Day	PHA (Live Tx from OR)	KHMC
W09 ****	General Surgery	Laparoscopic Colorectal Surgery	Tim Tollens (Belgium)	Dr Amer Amireh	4 May	Whole Day	Hall F (Wadi Rum 1) Live Tx from OR	KHBTCC
W10***	Pediatric Surgery	Minimally Invasive Surgery in Children	Monther Haddad (UK)	Dr Imad Habaibeh	2 May 5 May	Whole Day Whole Day	QRPH (Live Tx from OR)	KHMC
W11	Vascular Surgery	Total Occlusion Recanalization in Critical Limb Ischemia	Mark Farber (USA)	Dr Fayeq Haddadin	2 May	Whole Day	Cath Lab	KHMC

Workshops

Number	Specialty	Title	Guest	Liaison Officer	Date	Time	Hall	Venue
W12	Vascular Surgery	Endovascular Stent Graft for Abdominal and Thoracic Aneurysms	Mark Farber (USA)	Dr Hazem Habboub	3 May	Whole Day	Cath Lab	KHMC
W13	Obs & Gyn	Laparoscopic Gynecology Surgery	Hans-Rudolf Tinneberg (Germany)	Dr Zeyad Shraideh	2 May	09:00 - 16:00	Gyn OR	KHMC
W14	Obs & Gyn	Urogynecology	Uwe Torsten (Germany)	Dr Rami Shwayyat	3 May	09:00 - 15:00	Gyn OR	KHMC
W15	Obs & Gyn	Fetal Ultrasound	George Haddad (France)	Dr Maher Maaytah	4 May	09:00 - 16:00	PHA	KHMC
W16	Obs & Gyn	Hysteroscopic Surgery	Ossama Shawki (Egypt)	Dr Khaldoun Khamaeseh	6 May	09:00 - 16:00	Gyn OR (C3)	KHMC
W17***	ENT	Functional Endoscopic Sinus Surgery (FESS)	Reda Kamel (Egypt)	Dr Sami Jmaian	3 May	Whole Day	PH (Live Tx from OR)	KHMC
W18***	ENT	Otolgy & Neuro-otology	Michael McGee (USA)	Dr Sami Jmaian	5 May	Whole Day	PH (Live Tx from OR)	KHMC
W19	Ophthalmology	Management of Uveitic Cataract	Teifi James (UK)	Dr Fareed Zawaydeh	2 May	08:00 - 14:00	Ophth Dep	KHMC
W20	Emergency Medicine & Cardiology	Non Lethal Dysrhymthias	Stephen Bohan (UK)	Dr Suleiman Al-Abbadi	2 May	10:00 - 12:00	PHA	KHMC
W21	Dermatology	Fillers in Dermatology	Hassan Galadari (UAE)	Dr Isam Omeish	3 May	12:00 - 13:30	KHHL	KHMC
W22	Gastroenterology & Community Medicine	National Consensus on Hepatitis B & C	Mostafa Mohamad (Egypt)	Dr Malek Dabbas	3 May	09:00 - 13:00	Hall F (Wadi Rum 1)	KHBTCC
W23	Pediatric Cardiology	Intervention in Pediatric Cardiology	Ziyad Hijazi (USA)	Dr Awni Madani	2 - 3 May	Whole Day	QAHI	Cath Lab QAHI (KHMC)
W24	Physical Medicine &Rehabilitation	Management of Spasticity	Murray Brandstater (USA)	Dr AbdelFattah Wraikat	3 May	09:00 - 13:00	NCAR	KHMC
W25	Physical Medicine &Rehabilitation	Meso-Therapy for Facet Syndrome & for Knee Orthosis	Philippe Petit (France)	Dr AbdelFattah Wraikat	6 May	09:00 - 13:00	NCAR	KHMC
W26	Orthodontics	Clinical Aspects & Procedures Regarding Treatment with Mandibular Advancement Device	Mahmoud Escafi (Sweden)	Dr Manhal Rashdan	3 May	09:00 - 12:30	Hall K (Harraneh Hall 2)	KHBTCC
W27	Oral & Maxillo-Facial Surgery	Maxillo-Facial Trauma Course	Mohamed Maaytah (UK)	Dr Zuhair Mhaidat	3 May	09:00 - 12:30	Hall G (Wadi Rum Hall 2)	KHBTCC
W28**	Endodontic Dentistry	Key Skills for Successful Root Canal Treatment	Kishor Gulabival (UK) Yuan-Ling Ng (UK)	Dr Nader Masarweh	3 May	09:00 - 13:30	Hall I (Yarmouk Lounge)	KHBTCC
W29	Implant Dentistry	Dental Implant & Sinus Lift Training	Nahi Jabbour (Switzerland)	Dr Yousef Shmailan	4 May	11:30 - 19:00	Hall K (Harraneh Hall 2)	KHBTCC
W30	Pharmaco-Economics	Approach to Pharmaco-economics	Michael Drummond (UK)	Wafa' Al-Nsour MSc. Pharm	3 May	09:00 - 15:00	Hall J (Harraneh Hall 1)	KHBTCC
W31	Clinical Pharmacy	Pharmacist Medication Therapy (MTM) services experience in the USA	Roger Klotz (USA)	Wafa' Al-Nsour MSc. Pharm	4 May	09:00 - 18:30	Hall J (Harraneh Hall 1)	KHBTCC
W32	Nursing	Caring for older adults: Evidence-based practice in 2010	Patricia Higgins (USA)	Hala Obiedat PhD RN	5 May	11:30 - 13:30	Hall K (Harraneh Hall 2)	KHBTCC
W33	Nursing	Magnet Hospitals: A Strategic Platform for Quality	Linda Aiken (USA)	Mona Nsour PhD RN	5 May	15:00 - 17:00	Hall K (Harraneh Hall 2)	KHBTCC

KHMC (King Hussein Medical Center - Amman), **KHBTCC** (King Hussein Bin Talal Convention Center - Dead Sea), **BEI** (Biomedical Engineering Institute), **PHA** (Prince Hamzah Auditorium), **QRPH** (Queen Rania Pediatric Hospital), **Cath Lab** (Catheterization Laboratory), **Gyn OR** (Gynecology Operating Theater), **PH** (Physiology Hall), **Ophth Dep** (Ophthalmology Department), **KHHL** (King Hussein Hospital Library Hall), **QAHI** (Queen Alia Heart Institute), **NCAR** (National Center for Amputee Rehabilitation)

* RMS Only, Separate Registration

** Separate Registration

*** Live Surgery Transmission inside KHMC

**** Live Surgery Transmission from KHMC to KHBTCC

First Floor

A Dead Sea Hall

09:00 - 09:30 **Opening Ceremony**

Session I Nursing and Allied Health Professions

Moderators: Ahmad Al-Duhni RN, Oraib Taweel RN, Mohammad Qudah PhD

09:40 - 09:50 (1) The Analgesic Effects of Breast-Feeding During Heel Stick Blood Drawing among Jordanian Newborns
Hala Mahmoud Obeidat, RN, PhD (Jordan)

09:50 - 10:00 (2) Maternal Self-Efficacy and Maternal Attachment of First Time Jordanian Mothers
Adlah M. Hamlan AL Daja'h, RN, MSc (Jordan)

10:00-10:30 (3) Key Note Speaker
Nursing: Saving Lives, Improving Patient Care Outcomes
Linda H. Aiken, PhD, RN (USA)

10:30-11:00 (4) Key Note Speaker
Circadian Health: The Relationship Between Sleep-Wake Cycles and Light Exposure Patterns
Patricia A. Higgins, PhD, RN (USA)

11:00 - 11:30 **Coffee Break**

Session 2 Nursing and Allied Health Professions

Moderators: Rowida Salama RN, Suhila Ibraheem RN, Omar Harahasha RT

11:30 12:00 (5) Key Note Speaker
Hospital Quality and Work Force Factor: Cross-National Comparison
Linda H. Aiken, PhD, RN (USA)

12:00 - 12:30 (6) Key Note Speaker
Circadian Rhythms: The Ecology of Human Health and Environmental Interaction
Patricia A. Higgins, PhD, RN (USA)

12:30 - 12:40 (7) Beliefs And Attitudes of Women Undergoing Hysterectomy
Rima M. Habashneh, RN,MSc (Jordan)

12:40 - 12:50 (8) The Effect of Low-Frequency Alternating Electric Current on Human Skin Cancer Cells
Mohammed Hasan Al-Ghwairy, BSc, MSc (Jordan)

12:50 - 13:00 (9) Measuring Patient›s Satisfaction as an Outcome of the Nursing Care at Critical Care Areas at Prince Hashim Military Hospital
Hekmat Alakash RN, MSc (Jordan)

13:00 - 13:10 (10) Prenatal Diagnosis of Beta-Thalassaemia by Chorionic Villous Sampling (Experience at Princess Iman Research and Laboratory Sciences Center)
Mohammed Wael Abu-Ghoush, MT, MSc(Jordan)

13:10 - 13:20 (11) Diagnosis of Acute Rubella Infection during Early Pregnancy in Iraq
Basima Ahmed Abdullah (Iraq)

13:20 - 13:30 (12) Mammogram for Male Patients
Lubna Al-Husban RT (Jordan)

13:30 - 15:00 **Lunch Break**

Session 3 Nursing and Allied Health Professions

Moderators: Riyad Al-Dhgaim RN, Zakia Nassar RN, Suhair Eid MSc

15:00 - 15:10 (13) Acute Complications Post Blood Transfusion in Medical Pediatric Ward at King Hussein Medical Center
Wafaa Nail karadsheh RN (Jordan)

15:10 - 15:20 (14) Assessing the Perception of Nurses about the Privacy of the Patients
Manal Al-Bitawi RN (Jordan)

15:20 - 15:30 (15) Inpatient Satisfaction Survey at Prince Hashim Military Hospital
Randa Alsayegh RN (Jordan)

15:30 - 15:40 (16) Perception and Attitudes of Associate Nursing -Degree Students Towards Obesity, Acceptable Body Weight and Weight Control Measures
Atef Swati,BSc Diet (Jordan)

15:40 - 15:50 (17) The Use of Microscopic Urine Analysis of WBC Number per High Power Field in the Detection of Urinary Tract Infection in Children
Fathi Abdel-Algani MSc (Jordan)

15:50 - 16:00 (18) Clinical Significance of Asymptomatic Urogenital Mycoplasma Hominis and Ureaplasma Urealyticum in Relation to Seminal Fluid Parameters among Infertile Jordanian Males
Muna Abdel Dayem, MSc (Jordan)

16:00 - 16:10 (19) Spine Bone Mineral Density Associated with Adolescent Idiopathic Scoliosis
Ghazi Alamrat, CPO (Jordan)

16:10 - 16:20 (20) Bacteremia at King Hussein Medical Center, Amman - Jordan
Mohammad Abu-Setteh BSc (Jordan)

16:20 - 16:30 (21) Patient-Controlled Intravenous Analgesia for Knee and Hip Replacement Surgery
Arwa Mohammed Al-Mreadat RN (Jordan)

16:30 - 16:40 (22) Medical Equipment Replacement Planning System (ERPS) in Hospitals
Ibrahim Al-Majali, Biomed Eng (Jordan)

16:40 - 16:50 (23) Modifying the Timer Circuit of the Bego De Waxing Furnace Meditherm used in Dentistry Department at KHMC
Ghassan Ghzawi BSc (Jordan)

16:50 - 17:00 (24) The prevalence of smoking among non medical services providers
Sahar Ali Abo-Aliem, BSc (Jordan)

17:00 - 17:10 (25) Criteria for Choosing a National Hospital Information System
Omer I. Ayesh BSc Eng (Jordan)

17:10 - 17:30 **Coffee Break**

Session 4 Nursing and Allied Health Professions

Moderators: Ali Zghoul RN, Maha Mbaydeen MSc, Asma Ghdah RN

17:30 - 17:50 (26) Phage Therapy: the Road to Acceptance
Daniel De Vos, PhD (Belgium)

17:50 - 18:00 (27) Flowcytometry Analysis of CD55 and CD59 Expression on Granulocytes in Paroxysmal Nocturnal Hemoglobinuria. (Nine Years Experience at Princess Iman Research and Laboratory Sciences Center)
Manal N Abbadi BSc (Jordan)

18:00 - 18:10 (28) Survey of the Jordanian Knowledge and Understanding of Autism
Mai Shtawi RN (Jordan)

18:10 - 18:20 (29) Advanced Grandmother Maternal Age and Maternal Age as Risk Factors for Down Syndrome in a Group of Jordanian Families
Diana Shahine BSc (Jordan)

18:20 - 18:30 (30) The Impact of Chronic Diseases and Treatment Modality on Quality of Life Among Cardiac Patients in Jordan
Ryah Mjali RN (Jordan)

18:30 - 18:40 (31) Isodicentric X Chromosome in a Primary Amenorrhea Female with Turner Syndrome Phenotype
Aisha Badareen MSc (Jordan)

18:40 - 18:50 (32) Challenges Meet Home Modification Program for Spinal Cord Injured Patients
Zaid Hayajnah MSc PT (Jordan)

18:50 - 19:00 Discussion

HALL B: Mount Nebo Hall 1

Session I Endocrine & Cardiology

Moderators: Ahmad Armouti MD, Ahmad Ramadan MD, Mazen Ahmad MD

09:00 - 09:30 (33) FAQs (Frequently Asked Questions) in Thyroid Practice
Hussein Gharib MD (USA)

09:30 - 10:00 (34) Does Revascularization Prevent Cardiovascular Complications in Noncardiac Surgery?
Wael Al-Husami MD (USA)

10:00 - 10:30 (35) Congestive Heart Failure, Are We Sure We Know What We Should Do?
J Stephen Bohan MD (USA)

10:30 - 11:00 (36) Heart Disease & Anticoagulation Use During Pregnancy.
Wael Al-Husami MD (USA)

11:00 - 11:30 **Coffee Break**

Session 2 Emergency Medicine & Cardiology

Moderators: Hussein Amarat MD, Fakhri Al-Hakeem MD, Marwan Nimri MD

11:30 - 12:00 (37) Clinical Guidelines
J Stephen Bohan MD (USA)

12:00 - 12:30 (38) Intracardiac Echocardiography in The Catheterization Laboratory
Ziyad M Hijazi MD (USA)

12:30 - 12:40 (39) Continuous Retrograde Cold Blood Cardioplegia Decreases the Incidence of Postoperative Arrhythmias.
Basel Harahsheh MD (Jordan)

12:40 - 13:00 (40) Percutaneous Interventional Approach in Bypass Graft Revision Immediately After CABG with Completion Coronary Angiography
Marshall H Crenshaw MD (USA)

13:00 - 13:30 (41) Device Closure of Atrial Septal Defects in The Elderly Patient
Ziyad M Hijazi MD (USA)

13:30 - 15:00 **Lunch Break**

Session 3 Anesthesia

Moderators: Marwan Jumean MD, Sami Rababaa MD, Abdalla Obeidat MD

15:00 - 15:30 (42) Transoesophageal Echocardiography for Mitral Valve Repair
Guarracino Fabbio MD (Italy)

15:30 - 16:00 (43) Laryngeal Mask Airway Replaces Endotracheal Intubation – Step Forward or Back?
Carin Hagberg MD (USA)

16:00 - 16:30 (44) Pathophysiology, Diagnosis and Treatment of Peri-Operative Acute Renal Failure
Guarracino Fabbio MD (Italy)

16:30 - 17:00 (45) Acquiring Difficult Airway Management Skills Beyond Residency
Carin Hagberg MD (USA)

17:00 - 17:30 **Coffee Break**

Session 4 Cardiology

Moderators: Akram Al-Saleh MD, Awni Madani MD, Yahya Badayneh MD

17:30 - 18:00 (46) Management of Coarctation of the Aorta
Ziyad M Hijazi MD (USA)

18:00 - 18:10 (47) Frequency and Pattern of Herbal Medicine Use among Jordanians with Coronary Artery Disease
Abdallah Omeish MD (Jordan)

18:10 - 18:20 (48) Diagnostic Value of Coronary C T Angiography: a review of 82 cases
Mahmoud Obeidat MD (Jordan)

18:20 - 18:50 (49) Percutaneous Pulmonary Valve Implantation Using the Edwards Sapien™ THV
Ziyad M Hijazi MD (USA)

18:50 - 19:00 Discussion

HALL C: Mount Nebo Hall 2

Session I ENT

Moderators: Sameer Zureikat MD, Nabil Arda MD, Khaled Alqudah MD

09:00 - 09:40 (50) Cochlear Implants Today and the Future
Michael McGee MD (USA)

09:40 - 10:10 (51) Stapedectomy … Pitfalls and Complications
Hesham Negm MD (Egypt)

10:10 - 10:50 (52) Cochlear Implants for the Developing World
Michael McGee MD (USA)

10:50 - 11:00 Discussion

11:00 - 11:30 **Coffee Break**

Session 2 **ENT**

Moderators: Asem Al-Omari MD,Sami Jumean MD, Ibraheem Wedyan MD

11:30 - 12:00	53	Laser-Assisted Uvulo-Palatoplasty (LAUP) *Hesham Negm MD (Egypt)*
12:00 - 12:30	54	Cerebrospinal Fluid Rhinorrhoea: New Classification and Guidelines for Endoscopic Management *Reda Kamel MD (Egypt)*
12:30 - 13:00	55	Laser in Inferior Turbinate Enlargement *Hesham Negm MD (USA)*
13:00 - 13:10	56	The Role of infection in the development of secondary post-tonsillectomy bleeding *Sulaiman Al-Zaidaneen MD (Jordan)*
13:10 - 13:20	57	Revision Mastoidectomy: Our Experience in the Royal Medical Services *Nemer Al-Khtoum MD (Jordan)*
13:20 - 13:30		Discussion
13:30 - 15:00		**Lunch Break**

Session 3 **ENT**

Moderators: Mustafa Abbadi MD, Firas Al-Zoubi MD, Shawkat Al-Tamimi MD

15:00 - 15:30	58	Transnasal Endoscopic Surgery of the Frontal Sinus *Reda Kamel MD (Egypt)*
15:30 - 16:00	59	Transnasal Endoscopic Surgery of the Orbit & Orbital Apex *Reda Kamel MD (Egypt)*
16:00 - 16:10	60	Computed Tomography Scan Requirements for Endoscopic Surgery of Paranasal Sinuses, Current Practice *Qais Aljfout MD (Jordan)*
16:10 - 16:20	61	Pilomatrixoma- A Case Report of a 12 Year Old Female Child. *Mefleh Al-sarhan MD (Jordan)*
16:20 - 16:30	62	Oral Augmantin vs Rocephin for the Treatment of Acute Otitis Media in Pediatrics. *Wesam Khatatbeh MD (Jordan)*
16:30 - 16:40	63	Intra Operative and Post Operative Acquired Neural Response Telemetry Threshold Levels in Cochlear Implant Patients *Sufian Alroud MD (Jordan)*
16:40 - 17:00		Discussion
17:00 - 17:30		**Coffee Break**

Session 4 **Anesthesia**

Moderators: Mohammad Sukkar MD, Mohammad Al-Azzam MD, Mohammad Saeed MD

17:30 - 18:00	64	Extubation of the Difficult Airway *Carin Hagberg MD (USA)*
18:00 - 18:30	65	Cardioprotection in Clinical Anaesthesia *Guarracino Fabbio MD (Italy)*
18:30 - 18:40	66	Anaesthetic Management in Facial Bipartition *Hayel Gharaibeh MD (Jordan)*
18:40 - 18:50	67	Poor Handwashing Practices among Health Care Workers In ICU *Hussein Shalan MD (Jordan)*
18:50 - 19:00	68	Intensive Care Unit Acquired Pneumonia After Cardiac Surgery, Etiology, Causes, and prevention *Ali Aburumman MD (Jordan)*

Hall D: Petra Hall 1

Session I **Symposium 3 World Federation of Hemophilia**

Moderators: Mahmoud Sarhan MD, Samir Al-Faori MD, Issam Haddadin MD

09:00 - 09:20	69	History of Hemophilia *Assad Haffar MD (Canada)*
09:20 - 09:40	70	Strategy for Development of Hemophilia Care in Countries with Limited Resources *Bernadette Garvey MD (Canada)*
09:40 - 10:00	71	Von Willbrand Factor (VWD) *Flora Peyvandi MD (Italy)*
10:00 - 10:20	72	Complications of Hemophilia *Bernadette Garvey MD (Canada)*
10:20 - 10:40	73	Rare Bleeding Disorders *Flora Peyvandi MD (Italy)*
10:40 - 11:00		Discussion
11:00 - 11:30		**Coffee Break**

Session 2 **Pediatrics Oncology**

Moderators: Abdallah Owidi Abbadi MD, Mustafa Al-Falah MD, Musa Barkawi MD, Ahmad Telfah MD

11:30 - 12:00	74	Acute Lymphoblastic Leukaemia *Ayad Atra MD (UK)*
12:00 - 12:10	75	Malignant Melanoma: Expereince at the Royal Medical Services *Raed Al-Smadi MD (Jordan)*
12:10 - 12:40	76	Mycobacterial Infection in the Immunocompromised *Julia Clark MD (UK)*
12:40 - 12:50	77	The Spectrum of Familial Mediterranean Fever Gene Mutation among Children in North of Jordan *Nazih Abu Al-Shiekh MD (Jordan)*
12:50 - 13:20	78	Acute Myeloid Leukaemia *Ayad Atra MD (UK)*
13:20 - 13:30	79	Detection of Urinary Tract Congenital Anomalies in Children with Urinary Tract Infection using Tc99m-DMSA Renal Scan *Mais Zaki Al Halaseh MD (Jordan)*
14:00 - 15:00		**Symposium 4** Recent Advances in the Management of Breast Cancer *Paul Ellis MD (UK)* *Sponsored by Roche*

Session 3 **Pediatrics**

Moderators: Najwa Khouri MD, Wael Hayajneh MD, Mahmoud Kaabneh MD

15:00 - 15:30	80	Investigation of Pyrexia of Unknown Origin *Julia Clark MD (UK)*
15:30 - 15:40	81	Organic Acid Disorders Detected by Urine Organic Acid Analysis: in Princess Iman Center for Research and Laboratory Sciences over 40 Months Experience *Azmi Dwaikat MD (Jordan)*
15:40 - 15:50	82	Spectrum of Inborn Errors of Metabolism in Jordan; A Five Years Experience at King Hussein Medical Center *Wajdi Amayreh MD (Jordan)*
15:50 - 16:00	83	Children with Iron Deficiency Anemia are at High Risk to Get Febrile Seizure *Mohammad Shatnawi MD (Jordan)*
16:00 - 16:30	84	Congenital CMV; Assessment and Treatment *Julia Clark MD (UK)*
16:30 - 16:40	85	The Pattern of Feeding in Infants in South of Jordan *Ahmed Alissa MD (Jordan)*
16:40 - 16:50	86	How Sensitive is Ordinary Ultrasonography in Detecting Vesicoureteral Reflux in Children With Urinary Tract Infection? *Ala'a Tawalbeh MD (Jordan)*
16:50 - 17:00	87	The Use of Oral Sucrose Analgesia to Relieve Minor Procedural Pain in Neonates *Mahmoud Kaabneh MD (Jordan)*
17:00 - 17:30		**Coffee Break**

Session 4 **Pediatrics Pulmonology**

Moderators: Muna Khater MD, Nadwa Zuhluf MD, Abdelhamid Najada MD

17:30 - 18:00	88	Treatment of Pre-School Wheeze *Bush Andrew MD (USA)*
18:00 - 18:10	89	Pseudobartter Syndrome among Cystic Fibrosis Children *Abdelhameed Najada MD (Jordan)*
18:10 - 18:20	90	Hospitalized Children with 2009 H1N1 Influenza at a Jordanian Hospital. *Osama Abu-Salah MD (Jordan)*
18:20 - 18:30	91	Acute Respiratory Tract Infections in Jordanian Children *Nasser M Kaplan MD (Jordan)*
18:30 - 19:00	92	Problematic Severe Asthma in Older Children *Bush Andrew MD (USA)*

Hall E: Petra Hall 2

Session I **Orthopedics - General**

Moderators: Mohammad Al-Thaher MD, Jehad Ajlouni MD, Issam Dahabra MD

09:00 - 09:30	93	Arthroscopic Surgery of the Hip Joint *Schatz Klaus-Dieter MD (Austria)*
09:30 - 10:00	94	Extensor Mechanism Repair of the Knee Joint with Synthetic Implants *Martin Dominkus MD (Austria)*
10:00 - 10:30	95	Mini Open Cuff Repair, Still Allowed Today? *Schatz Klaus-Dieter MD (Austria)*
10:30 - 11:00	96	Development of Orthopaedic Oncology over the Last 4 Decades *Martin Dominkus MD (Austria)*
11:00 - 11:30		**Coffee Break**

Session 2

Orthopedics - Spine

Moderators: Kamel Afifi MD, Maher Haddadin MD, Munther Saudi MD

11:30 - 12:00	97	Idiopathic Scoliosis Approach and Treatment *Michael Rauschmann MD (Germany)*
12:00 - 12:30	98	Vertebroplasty And Kyphoplasty In The Management Of Osteoporotic Spine Fracture *Abdulrazzaq Alobaid MD (Kuwait)*
12:30 - 13:00	99	Defect Reconstruction after Severe Bone Loss in the Pelvis *Martin Dominkus MD (Austria)*
13:00 - 13:30	100	Surgery for Primary Vertebral Tumors and Solitary Spinal Column Metastatic Disease: Techniques of Oncologically Sufficient Resections at the Spine *Klaus-D Schaser MD (Germany)*
13:30 - 15:00		**Lunch Break**

Session 3

Orthopedics & Reconstructive Surgery

Moderators: Nabil Atallah MD, Mutaz Al-Karmi MD, Mazen Qaqish MD, Mohammad Dweiri MD

15:00 - 15:30	101	Surgical Management of Complex Extremity Injuries: A Reconstructive Algorithm *Klaus-D Schaser MD (Germany)*
15:30 - 16:00	102	New Technologies and Orthognathic Surgery *Nick Katsikeris MD (Greece)*
16:00 - 16:30	103	The Changing Role of the Plastic Surgeon in Limb Trauma. *Iain Mackay MD (UK)*
16:30 - 17:00	104	Orbital and Zygomaticomaxillary Fractures *Nick Katsikeris MD (Greece)*
17:00 - 17:30		**Coffee Break**

Session 4

Orthopedics & Rehabilitation

Moderators: Munther Odeh MD, Abdelfattah Woriekat MD, Mahmoud Odat MD

17:30 - 18:00	105	Achille's Tenopaties *Philippe Petit MD (France)*

18:00 - 18:30 106 Delta Shoulder Prostheses
Schatz Klaus-Dieter MD (Austria)

18:30 - 19:00 107 Shoulder Disorders In Mesotherapy
Philippe Petit MD (France)

Hall F: Wadi Rum 1

Session 2 - 3

W09 General Surgery
Laparoscopic Colorectal Surgery

Moderators: Ali Obous MD, Asad Ghazal MD, Wael Nasan MD

11:00 - 17:00 W09 **Live Surgery Transmission from KHMC**
Tim Tollens MD (Belgium)

Session 4

General Surgery

Moderators: Abdelhadi Breizat MD, Hanan Rehani MD, Mahmoud Al-Yamani MD

17:30 - 17:50 108 Pancreatic Cystic Disease
Mahmoud Abu-Khalaf MD (Jordan)

17:50 - 18:10 109 WHO Surgical Safety Checklist: Wide Implementation
Abdel Hadi Brezat MD (Jordan)

18:10 - 18:20 110 Surgical Management of Liver Hydatid Cysts at King Hussein Medical Center
Mazen Omari MD (Jordan)

18:20 - 18:30 111 Breast Oncoplastic Surgery & Skin Sparing Mastectomy with Immediate Breast Reconstruction using Latissimus Dorsi Muscle Flap
Ali Abuseini MD (Jordan)

18:30 - 18:40 112 Drainage of Pleural Effusion: the Task of Whom?
Hani Al-Hadidi MD (Jordan)

18:40 - 18:50 113 Single-Stage Reconstruction of Infected Sternotomy Wound using Left Sided Islanded Pectoralis Major Muscle-Only Flap, our Early Experience at King Hussein Medical Center
Samhar Weshah MD (Jordan)

18:50 - 19:00 114 Pulmonary Hydatid Disease: A Review of 27 Cases
Jamal Alaydi MD (Jordan)

Hall G: Wadi Rum 2

Session I

Symposium 2
Surgical Training

Moderators: Laith Abunowar MD, Husam Faraj MD, Khaldoun Haddadin MD

09:00 - 09:30 115 Formal Surgical Training in the Early Years
John Weston Underwood MD (UK)

09:30 - 10:00 116 The Essence of Leadership in a Rapidly Changing World
Mr J W Rodney Peyton MD (UK)

10:00 - 10:30 117 Current Methods of Assessing Surgical Trainees in the UK
Iain Mackay MD (UK)

10:30 - 11:00 Discussion

11:00 - 11:30 **Coffee Break**

Session 2

Dermatology & Plastic Surgery

Moderators: Omeish Yousef MD, Zaid Odwan MD, Mohammad Mheisen MD

11:30 - 12:00 118 Know Your Materials: The Thin Line Between Science and Science Fiction
Hassan Galadari MD (UAE)

12:00 - 12:30 119 Advances in Cutaneous Laser Treatment
Iain Mackay MD (UK)

12:30 - 13:00 120 The Perfect Lips
Hassan Galadari MD (UAE)

13:00 - 13:30 121 Complications in Cosmetic Dermatology
Hassan Galadari MD (UAE)

13:30 - 15:00 **Lunch Break**

Session 3

Symposium 1
Royal College of Physicians
Setting Standards in Medicine Sumposium
Clinical Guidelines Development

Moderators: Mohammad Krayyem MD, Ali Jawad MD, Ala Al-Hersh MD

15:00 - 17:00

1. Delivering High Quality Health Care
2. The National Clinical Guideline Centre (NCGC) Experience of Developing Clinical Guidelines
3. The Clinical Effectiveness and Evaluation Unit (CEEU) of the Royal College of Physicians Experience of Developing and
4. Managing National Comparative Clinical Audit: How the Royal College of Physicians uses Clinical Audit to Improve Standards of Care

Matthew Foster MD (UK)
Jonathan Potter MD (UK)
Rohna Bukingham (UK)
Jill Parnham (UK)

Royal College of Physicians
Setting higher medical standards

17:00 - 17:30 **Coffee Break**

Session 4

Psychiatry

Moderators: Radwan Otoum MD, Mohammad Dabbas MD, Fayrooz Al-Sayyeg MD

17:30 - 18:00 122 Why do People Hallucinate?
Peter Woodruff MD (UK)

18:00 - 18:10 123 Maladaptation among Peacekeeping Troops: Jordanian Experience in Liberia
Mohammad Zaubi MD (Jordan)

18:10 - 18:20 124 Adjustment Disorder with Anxiety Features among Jordanian Peacekeepers in Liberia
Sa'ed Al-Shunnaq MD (Jordan)

18:20 - 18:30 125 Psychiatric Diagnoses of 250 Air Force Service Members Treated in Psychiatric Clinics, and The Influence on Their Military Service.
Fairouz Sayegh MD, (Jordan)

18:30 - 19:00 126 Understanding other People's Worlds- Cognition, Social Cognition and Schizophrenia
Peter Woodruff MD (UK)

Hall H: Mou'ta Lounge

Session I

Neurology & Rehabilitation

Moderators: Husni Rasheed MD, Ali Otoum MD, Munir Dhayyat MD

09:00 - 09:30 127 Multiple Sclerosis in Middle Eastern Countries, Historical and Epidemiological Perspective
Amir Al-Din MD (UK)

09:30 - 10:00 128 A Review of the Evidence Supporting the Efficacy of Stroke Rehabilitation
Murray Brandstater MD (USA)

10:00 - 10:30 129 The Management of Trigeminal Autonomic Cephalgias and "Atypical" Facial Pains
Amir Al-Din MD (UK)

10:30 - 11:00 130 Recent Advances in Stroke Rehabilitation
Murray Brandstater MD (USA)

11:00 - 11:30 **Coffee Break**

Session 2

Neurology & Rehabilitation

Moderators: Aida Doughan MD, Majed Habahbeh MD, Ali Al-Hadeed MD

11:30 - 12:00 131 Diagnosis and Management of Pain in Stroke Survivors
Murray Brandstater MD (USA)

12:00 - 12:10 132 Comprehensive Study in Intractable Epilepsy
Raed Nofal MD (Jordan)

12:10 - 12:20 133 Clinical Profile of Juvenile Myoclonic Epilepsy in Jordan.
Majed Habahbeh MD (Jordan)

12:20 - 12:30 134 Osteoporosis after Spinal Cord Injury
Ali Otom MD (Jordan)

12:30 - 12:40 135 Biologic Experience for Rheumatoid Arthritis in Rheumatology Unit at King Hussein Medical Center
Manal Al Mashaleh MD (Jordan)

12:40 - 12:50 136 Clinical Presentation of Joint Hypermobility Syndrome of The Knee in Military Personnel
Ibrahim Amayreh MD (Jordan)

12:50 - 13:00 137 Effect of Exercise Intervention in Patients With Osteoarthritis of the Knee.
Wael Thunaibat MD (Jordan)

13:00 - 13:10 138 Thyroid Abnormalities in Rheumatological Diseases
Ausaylah Burgan MD (Jordan)

13:10 - 13:30 Discussion

13:30 - 15:00 **Lunch Break**

Session 3 **Pathology**

Moderators: Azmi Mahafzah MD, Maher Sughayyer MD, Tayseer Shubeilat MD

15:00 - 15:30 139 New Entities of Lymphoma Classification
Nayef Aqel MD (UK)

15:30 - 16:00 140 Individualised Treatment in Breast Cancer: A Concept Based on Histopathology
Sami Shousha MD (UK)

16:00 - 16:30 141 Unusual Reactive Lymphadenopathy
Nayef Aqel MD (UK)

16:30 - 17:00 142 Intracystic Papillary Lesions of the Breast
Sami Shousha MD (UK)

17:00 - 17:30 **Coffee Break**

Session 4 **Pathology**

Moderators: Hassan Innab MD, Yahya Dajani MD, Nasrat Babooq MD

17:30 - 18:00 143 Pathology Slide Seminar entitled (Five Interesting Breast Cases)
Sami Shousha MD (UK)

18:00 - 18:30 144 Slide Seminar on Lymphoma
Nayef Aqel MD (UK)

18:30 - 18:40 145 Fibroosseus Pseudotumour of the Digits: A Clinicopathological Study of 44 New Cases in USA
Lina Al Nahar MD (Jordan)

18:40 - 18:50 146 Efficacy of Broncho -Alveolar Lavage and Bronchial Brush Cytology in Diagnosing Lung Cancers
Ahmad Abu- Elsamen MD (Jordan)

18:50 - 19:00 147 HIT- Syndrome (Heparin-Induced Thrombocytopenia) by Positive Diamed Assay , Based on a Scoring System (4Ts).
Alhaliq Abdel R. MD (Jordan)

Hall I: Yarmouk Lounge

Session I **Ophthalmology & Dermatology**

Moderators: Issam Omeish MD, Wael Abulaban MD, Reham Shaban MD

09:00 - 09:10 148 Mitomycin C Versus Conjunctival Limbal Autograft after Pterygium Excision: A Study Series from Brighton to Amman.
Nancy Al-Raggad MD (Jordan)

09:10 - 09:20 149 Lensectomy for Bilateral Congenital Cataract Patients: Experience at King Hussein Medical Center
Iman Abdelal MD (Jordan)

09:20 - 09:30 | 150 | Atropine Penalization versus Occlusion Therapy in Amblyopia
Mohammad Abdo Ja'ara MD (Jordan)

09:30 - 09:40 | 151 | Ophthalmia Nodosa Secondary to Goliath Bird-eating Tarantula Hairs
Khalid Al Zubi MD (Jordan)

09:40 - 09:50 | 152 | The Use of Visual Evoked Potential in Comparison with Fogging Technique in Patients with Functional Visual Loss
Mousa Al-Madani MD (Jordan)

09:50 - 10:00 | 153 | Effect of Phacoemulsification Surgery on Intraocular Pressure
Ahmed Al-Shishi MD (Jordan)

10:00 - 10:10 | 154 | Complications Encountered in Laser-assisted in situ Keratomileusis at King Hussein Medical Center during 5 years
Sami Dasan MD (Jordan)

10:10 - 10:20 | 155 | An Epidemiological Investigation and Characterization of Acute Kerato-Conjunctivitis: Report of an Outbreak
Mahmud Abdallat MD (Jordan)

10:20 - 10:30 | 156 | Drugs Causing Fixed Drug Eruptions: A Clinical Study.
Nidal Obaidat MD (Jordan)

10:30 - 10:40 | 157 | Neutrophilic Dermatosis of the Dorsal Hands: An Evolving Disease Concept with Paraneoplastic Significance
Mohammad Tawara MD (Jordan)

10:40 - 10:50 | 158 | Zinc Deficiency in Atopic Dermatitis Patients, Association, and Replacement Results
Mamoun Athamneh MD (Jordan)

10:50 - 11:00 | 159 | Control of Hypertension in Patients with Type 2 Diabetes who have Diabetic Retinopathy
Muntaha Jerius MD (Jordan)

11:00 - 11:30 | **Coffee Break**

Session 2 **Pediatric Surgery**
Moderators: Hayel Ajilat MD, Bassam Kheir MD, Imad Habaibeh MD

11:30 - 12:00 | 160 | Advances in Minimally Invasive Surgery in Children
Monther Haddad MD (UK)

12:00 - 12:30 | 161 | Thoracoscopic Surgery in Children
Monther Haddad MD (UK)

12:30 - 13:00 | 162 | Congenital Lung Malformations: To Operate or not?
Bush Andrew MD (USA)

13:00 - 13:10 | 163 | Lap Assisted Endorectal Pull-Through For Hirschsprung Disease
Emad Habaibeh MD (Jordan)

13:10 - 13:20 | 164 | Nephrectomy: Indications in 119 Childrens
Ibrahim Daradka MD (Jordan)

13:20 - 13:30 | 165 | Laparoscopic Pyeloplasty for Repair of Pelvi-Ureteric Junction Obstruction in Children.
Najeh Alomari MD (Jordan)

13:30 - 15:00 | **Lunch Break**

Session 3 **Vascular Surgery**
Moderators: Muayyad Al-Naser MD, Ziad Quraan MD, Fayeq Haddadin MD

15:00 - 15:30 | 166 | Thoracomesenteric Bypass for Chronic Mesenteric Ischemia.
Mark Farber MD (USA)

15:30 - 16:00 | 167 | Hybrid Procedures for Thoracoabdominal Aortic Aneurysms.
Mark Farber MD (USA)

16:00 - 16:30 | 168 | Great Vessel Debranching for TEVAR
Mark Farber MD (USA)

16:30 - 16:40 | 169 | Carotid Body Tumors: 15 years experience.
Kristi Janho MD (Jordan)

16:40 - 16:50 | 170 | Ruptured Abdominal Aortic aneurysm
Abdullah Al-Qudah MD (Jordan)

16:50 - 17:00 | Discussion

17:00 - 17:30 | **Coffee Break**

Session 4 **Pediatric Surgery**
Moderators: Saeb Hammoudeh MD, Mazen Nseir MD, Maen Masarweh MD

17:30 - 18:00 | 171 | Single Port Laparoscopic Surgery in Children
Monther Haddad MD (UK)

18:00 - 18:10 | 172 | Laparoscopically Assisted Anorectal Pull-Through for High Imperforate Anus: Experience at King Hussein Medical Center
Ahmad Al-Raymoony MD (Jordan)

18:10 - 18:20 | 173 | Characteristics of Laparoscopic Inguinal Hernia Recurrence
Walid Issa Treef MD (Jordan)

18:20 - 18:30 | 174 | Audit on Pediatric Day Case Surgery
Samer Karadsheh MD (Jordan)

18:30 - 18:40 | 175 | Laparoscopic Nephroureterectomy in Children, our Preliminary Experience
Mohamad Dajah MD (Jordan)

18:40 - 18:50 | 176 | Laparoscopic Nissen Fundoplication in Children, our Preliminary Experience
Wasim Almefleh MD (Jordan)

18:50 - 19:00 | 177 | The Importance of Chest X-ray in the Diagnosis of Foreign Body Aspiration among Children.
Rafiq Haddad MD (Jordan)

Hall J: Harraneh Hall 1

Session I - 4 **W31 Clinical Pharmacy Workshop**
Moderators:
Emad Nsour MSc.Pharm, Layla Jarar BSc Pharm
Mohannad Al- Haj MSc.Pharm, Lama Al- Hmoud BSc Pharm

09:00 - 18:30 **Pharmacist Medication Therapy Management (MTM) Services in the United States**
Roger S. Klotz, RPh, BCNSP, FASCP, FACA, FCPhA (USA)

Role of Clinical Pharmacist in Ambulatory Care- A Model of Collaborative Work Between Pharmacist & Physician
Albsoul-Younes PhD (Jordan)

Role of Clinical Pharmacist in Ambulatory Care- Anti Coagulation Clinic
Linda Tahayneh Pharm.D (Jordan)

Evidence Based Pharmaceutical Care
Salah Abu Alrouz PhD (Jordan)

Hall K: Harraneh Hall 2

Session I **Restorative Dentistry**
Moderators: Dr Mohammed Omari, Dr Bashar Al Kilani, Dr Mohammad Hammo

09:00 - 09:10 | 178 | Tensile Peel Strength of Different Types of Luting Cements
Muna Fahhad BDS, MMedSci, JDB Cons (Jordan)

09:10 - 09:20 | 179 | Awareness and Attitude Regarding Prosthetic Management of Missing Teeth
Ghadeer Mukatash BDS, MSc (Jordan)

09:20 - 09:30 | 180 | Changes in the Pulp Testing Responses During Orthodontic Treatment and Retention
Riyadh Habahbeh BDS, MDentSci (Jordan)

09:30 - 09:40 | 181 | Cracked Tooth Syndrome
Maha Al-Ahmad BDS, JDB Cons (Jordan)

09:40 - 09:50 | 182 | Treatment Options of the Congenitally Missing Maxillary Lateral Incisor: Orthodontic Space Closure vs. Prosthetic Replacement
Yousef Al-Shumailan BDS, MSc (Jordan)

09:50 - 10:00 | 183 | The Prosthodontic Concept of Crown to Root Ratio; A Review
Ruba Al-Qaisi BDS, JDB Prostho (Jordan)

10:00 - 10:10 | 184 | Oral Manifestations and Dental Management of Patients with End Stage Renal Disease receiving Hemodialysis
Shamik Hamadneh BDS, JDB Perio (Jordan)

10:10 - 10:20 | 185 | Periodontal Status of Pregnant and Non-pregnant Women in Al Karak City in Jordan
Hazem Khraisat BDS, JDB Perio (Jordan)

10:20 - 10:30 | 186 | Prevalence of Dental Caries, Gingivitis, and Malocclusion in School Children and Adolescents in Jordan
Rana Omor BDS, JDB Perio (Jordan)

10:30 - 10:40 | 187 | Oral Lesions among Diabetic Patients; Experience at Prince Rashed Military Hospital
Ahmad Alawneh BDS, JDB Prostho (Jordan)

10:40 - 10:50 | 188 | Clinical Application of Post-Orthodontic Retention Methods
Zaid Zou'bi BDS, JDB Ortho (Jordan)

10:50 - 11:00 | Discussion

11:00 - 11:30 | **Coffee Break**

Session 2 - 4 **W29: Implant Dentistry Workshop**
Moderators: Dr Yousef Shmeilan

11:30 - 19:00 **Dental Implant & Sinus Lift Training**
Dr Nahi Jabbour (Switzerland)

A1: Dead Sea Hall 1

Dentistry

Session 1 **Restorative Dentistry and Endodontics**
Moderators: Dr Yasin Husban, Dr Fuad Kathem, Dr Ehab Rassas

09:00 - 10:00 | 189 | A Synthesis on Root Canal Treatment: Clinical, Technical Chemical and Biological Perspectives
Prof. Kishor Gulabivala
BDS, MSc, FDSRCS, PhD, FHEA-(UK)

10:00 - 10:10 | 190 | The incidence of a Fourth Canal in Maxillary and Mandibular Molars in a Group of Jordanians
Abeer Al-Khraisat BDS, MMedSci, JDB Cons (Jordan)

10:10 - 10:20 | 191 | A Morphological Classification for Fractured Anterior Teeth
Khattar Haddadin BDS, MMedSci (Jordan)

10:20 - 10:30 | 192 | Occular Prosthesis; Our Experience in the Royal Medical Services
Ayesh Dweiri BDS, MSc (Jordan)

10:30 - 10:40 | 193 | Clinical Remount and its Relation to Denture Acceptance
Rania Samara BDS, MMedSci, JDB Prostho (Jordan)

10:40 - 10:50 | 194 | Oral Malodor; Self Perception
Najwa Nassrawin BDS, MSc (Jordan)

10:50 - 11:00 | 195 | Cigarrette Smoking as a Risk Factor for Periodontitis; A Review Study
Yahya Draidi BDS, MDentSci (Jordan)

11:00 - 11:30 | Coffee Break

Session 2 **Maxilo-Facial Surgery and Implant Dentistry**
Moderators: Dr Rawhi Rashid, Dr Ziad Malkawi, Dr Jasser Maaytah

11:30 - 12:30 | **196** | Current Trends in Implant Dentistry
Dr Nahi Jabbour
Head of Clinical Research and Business Developments (Switzerland)

12:30 - 13:00 | **197** | The Importance of Clinical Audit in Improving Health Services
Dr Mohammed El Maaytah
BDS, MSc, PhD, FRCSI, FRCS Eng, LDS (UK)

13:00 - 13:10 | 198 | Nonsquamous Cell Malignant Tumours of the Maxillofacial Region in Jordanians
Hani Telfah BDS, MSc, FDSRCS (Jordan)

13:10 - 13:20 | 199 | The Evolution of Lasers in Dentistry
Fuad Al-Dowikat BDS, MDS, ABOMS (Jordan)

13:20 - 13:30 | 200 | Treatment of Oro-facial Tumors; A Presentation of Clinical Cases
Zuhair Muhaidat MSc, MOS RCS (Jordan)

13:30 - 15:00 | Lunch Break

Session 3 **Orthodontics and Pedodontics**
Moderators: Dr Riyadh Batikhi, Dr Lamis Rajab, Dr Manhal Rashdan

15:00 - 16:00 201	Snoring and Obstructive Sleep Apnea *Dr Mohammad Eskafi* *DDS, Ph.D, Spec. TMD/Orofacial Pain (Sweden)*
16:00 - 16:10 202	The Occurrence of Early Childhood Caries in a Sample of Jordanian Children *Karam Abu Shakra BDS, MSc (Jordan)*
16:10 - 16:20 203	Clinical and Reported Adverse Effects of Orthodontic Treatment; A Short Term Study *Bashar El Momani BDS, MFDS , JDB Ortho (Jordan)*
16:20 - 16:30 204	Effectiveness of an Essential Oil Mouth Rinse in Improving Oral Health in Orthodontic Patients *Nabeel Shdefat BDS, JDB Orhtho (Jordan)*
16:30 - 16:40 205	Lateral Facial Profile and Dental Malocclusion Relashionship in Jordanian School Children *Amjad Al Warawreh BDS, JDB Ortho (Jordan)*
16:40 - 16:50 206	Sports Related Dental Trauma and Parents' Awareness to the Need for a Protective Measure *Taghreed Jaradat BDS, JDB Pedo (Jordan)*
16:50 - 17:00 207	Prevalence of Canine Impaction in Orthodontic Patients *Mohammed Ma'ani BDS, MSc, JDB Ortho (Jordan)*
17:00 - 17:30	Coffee Break

Session 4 **Maxillo-Facial Surgery and Implant Dentistry**
Moderators: Dr Ghassan Edelbi, Dr Mamoun Rawashdeh, Dr Abdul-Majid Abdul-Latif

17:30 - 18:00 208	Bone Grafts and Substitutes in Implant Dentistry *Mohammed El-Maaytah* *BDS, MSc, PhD, FRCSI, FRCS Eng, LDS (UK)*
18:00 - 18:10 209	Image guided Navigation for Treatment of Orbital Fractures *Mohammed Jarrah BDS, JDB Surgery (Jordan)*
18:10 - 18:20 210	Occlusal Considerations for Implant Supported Prosthesis *Jehad Ajarmeh BDS, JDB Cons (Jordan)*
18:20 - 18:30 211	Cemento-Osseous Dysplasia *Manal Abu Al Ghanam BDS, JDB Perio (Jordan)*

A2 Dead Sea Hall 2

Under the Patronage of the

09: 00 – 09:15

Director General of the Royal Medical Services
Major General Dr Abdellatif Woreikat
6th Pharmaceutical Scientific Day
"New Concepts in Pharmacy Practice"
Opening Ceremony

Session One:
09.00 – 11:00 Pharmacy
Moderators: Hamzeh Al- Talafha MSc. Pharm,Maysa Al- Saket BSc.Pharm, Wafa Al-Nsour MSc. Pharm

09:15- 09:30 212	Introduction to the Day and Welcoming *Wafa Al-Nsour MSc. Pharm (Jordan)*
09:30- 09:45 213	Physicians' Knowledge, Attitude and Practice about Management of medications in Ramadan in Jordan *Abla Albsoul-Younes PhD (Jordan)*
09:45– 10:15 214	Pharmacist Provided Direct Patient Care Services *Roger S. Klotz Pharm D (USA)*
10:15- 10:30 215	Clinical Pharmacist Role in the Management of Hypertension and Metabolic Syndrome for Optimum Treatment Outcomes in Jordan *Linda Tahyneh Pharm.D (Jordan)*
10:30-10:45 216	An integrated pharmaceutical care intervention for patients with type 2 diabetes *Anan Jarab PhD (Jordan)*
10:45-11:00 217	Assessment of the awareness degree about the uses and side effects of antibiotics among the Jordanian population. *Nadia alomari MSc Pharm (Jordan)*
11:00– 11:30	Coffee Break

Session Two:
11:30 – 13:30 Pharmacy
Moderators: Reham Al-Nadif BSc. Pharm, Taher Al- Shaksheer BSc. Pharm, Khalil Bajes BSc. Pharm

11:30-12:00 218	The Role and Importance of Health Economics in Developing Countries. *Michael F. Drummond PhD (UK)*
12:00-12:30 219	Pharmacist and Physician Collaborative Practice Programs in Managing Their Patient's Medication Therapy *Roger S. Klotz PhD (USA)*
12:30- 12:45 220	Pregabalin Efficacy and Tolerability *Nairooz H. Al-Momany MSc Pharm (Jordan)*
12:45- 13:00 221	Chronic Stress-Induced Impairment of Learning and Memory is Prevented by Caffeine Administration *Karm Alzoubi PhD (Jordan)*
13:00-13:15 222	The influence of genetic polymorphism of CYP3A5 (1*/*3and*6) on tacrolimus serum concentration among Jordanian liver transplant patients. *Rabi'a Jamil Al- Jabra MS. Pharm (Jordan)*
13:15-13:30 223	Incidence of adverse drug reactions in-patients at Al-karak governmental hospital *Mohammed Al-Sbou PhD (Jordan)*
13:30-15:00	**Lunch Break**

Session Three:
15:00 – 17:00 Pharmacy
Moderators:
Saleem Jemian BSc. Pharm, Adnan Badwan PhD. Pharm, Reem AL- Qutob BSc. Pharm

15:00-15:30 224	Novel Coprocessed Common excipients with Mg Silicate. *Adnan A. Badwan PhD (Jordan)*
15:30- 15:45 225	A New Range Of Blood Glucose Level For Controlling Stress Induced Hyperglycemia In Intensive Care Unit (ICU) Patients *Hiyam Salem Al-Hqeesh MSc Pharm (Jordan)*
15:45-16:00 226	Frequency and antimicrobial sensivity of pseudomonas aeruginosa in burn wound infection in Farah Centre for Rehabilitation, Jordan. *Nibal M. Abu Ashour MSc Pharm (Jordan)*
16:00-16:15 227	The Medicine Transparency Alliance, Process and Progress in Jordan *Rania Bader MSc.pharm (Jordan)*
16:15- 16:30 228	The Immunomodulatory Effect of Gemifloxacin on Human Peripheral Mononuclear Blood Cells. *Hadeel Hafez Zayyat MSc Pharm (Jordan)*
16:30- 16:45 229	The Influence of Dietary Intake of Dairy Products on Dysmenorrhea. *Khalid Abdul-Razzak Al-Ani PhD (Jordan)*
16:45- 17:00 230	Highlighting the main needs in promoting appropriate medication use among children in Jordan. *Muna barakat MSc Pharm (Jordan)*
17:00- 17:30	Coffee Break

Session Four:
17:30 – 18:15 Pharmacy
Moderators:
Abedrabo Al-Hazaymeh BSc. Pharm, Tawfeeq Arafat PhD. Pharm, Omar Khalil MSc. Pharm

17:30- 17:45 231	Isolation of Streptococcus agalactiae from Uterine Tumors and Endometrial Hyperplasia. A Histopathological Examination and a Study on Virulence, and Antibiotic Susceptibility of Isolated S. agalactiae *Hadeel T. Al-Hadithi PhD (Iraq)*
17:45- 18:00 232	Interaction of Metoprolol succinate with coating materials in MR tablets *Derar Omari PhD (Jordan)*
18:00- 18:15 233	Warehouse and distribution system: On-Shelf availability and inventory management enabling high performance *Taghreed S. Habashneh MSc Pharm (Jordan)*

Hall B: Mount Nebo Hall 1

Session 1 **Immunology**
Moderators: Hani Zukkreddin MD, Ruwaida Hijazin MD, Mansour Karadsheh MD

09:00 - 09:30 234	Immunity- Strategic Defence of Self *Lynn Morgan MD (Uk)*
09:30 - 10:00 235	Pediatric SLE: Similarities and Differences from Adult SLE *Earl Silverman MD (Canada)*
10:00 - 10:30 236	Immunology and Disease *Lynn Morgan MD (Uk)*
10:30 - 11:00 237	Eosinophilic Esophagitis, the New Epidemic *Anne Marie Irani MD (USA)*
11:00 - 11:30	Coffee Break

Session 2 **Rheumatology & Immunology**
Moderators: Musa Hadidi MD, Haidaer Habahbeh MD, Adel Wahadneh MD

11:30 - 12:00 238	Calcinosis Of The Skin: A Neglected Sign Of Disease And Disability *Ali Jawad MD (UK)*
12:00 - 12:30 239	Atopic Dermatitis: Pearls and Pitfalls *Anne Marie Irani MD (USA)*
12:30 - 13:00 240	Chronic Urticaria and Angioedema: Do we understand its cause and How to Treat it? *Lawrence B. Schwartz MD (USA)*
13:00 - 13:30 241	Food Allergy Diagnosis and Management *Anne Marie Irani MD (USA)*
13:30 - 15:00	Lunch Break

Session 3 **Rheumatology & Immunology**
Moderators: Anan Faqih MD, Khaldoun Alawneh MD, Ali Otoum MD

15:00 - 15:30 242	Diagnostic Immunopathology *Lynn Morgan MD (UK)*
15:30 - 16:00 243	Hypereosinophilic Syndrome: a multi-subspecialty disease. *Lawrence B Schwartz MD (USA)*
16:00 - 16:30 244	Treating Osteoarthritic Pain: What Are The Options? *Ali Jawad MD (UK)*
16:30 - 17:00 245	Systemic Anaphylaxis: Under-Diagnosed and Under-Treated. *Lawrence B Schwartz MD (USA)*
17:00 - 17:30	Coffee Break

Hall C: Mount Nebo Hall 2

Session 1 **Gastroenterology**
Moderators: Mustafa Shunnaq MD, Mohammad Amer Al-Khateeb MD, Waleed Obeidat MD

09:00 - 09:30 246	The Evolution of Small Bowel Endoscopy *David Sanders MD (UK)*
09:30 - 10:00 247	Coeliac Disease a Global Epidemic! *David Sanders MD (UK)*
10:00 - 10:30 248	Update on Autoimmune Hepatitis *Mohammed Karajeh MD (UK)*
10:30 - 11:00 249	IBS How Far do you Investigate? *David Sanders MD (UK)*
11:00 - 11:30	Coffee Break

Session 2 **Nephrology**
Moderators: Ayman Wahbi MD, Issa Hazza MD, Ibraheem Smadi MD

11:30 - 12:00 250	Adequacy of Peritoneal Dialysis: The Limitations of Small Solute Kinetics *Joanne Bargman MD (Canada)*
12:00 - 12:30 251	Cardiogenic Shock, Mechanical Complications and Hemodynamic Support *Wael Al-Husami MD (USA)*
12:30 - 13:00 252	The Treatment of Lupus Nephritis: How Did Cyclophosphamide Become the Treatment of Choice? *Joanne Bargman MD (Canada)*
13:00 - 13:30 253	An Approach to the Classification of Primary Glomerulonephritis *Joanne Bargman MD (Canada)*

14:00 - 15:00 **Symposium 5**
Optimizing RAAS Suppression: Aliskiren
"The First Direct Renin Inhibitor"
Nabil Akash MD (Jordan)
Sponsored by Novartis

Session 3 Gastroenterology & Nephrology
Moderators: Khaled Jadallah MD, Imad Ghzawi MD, Ayham Haddad MD

15:00 - 15:30 254 Difficult Ascites
Mohammed Karajeh MD (UK)

15:30 - 15:40 255 The Safety and Efficacy of Cyanoacrylate Injection in Treatment of Gastric Variceal Bleeding.KHMC 2 Years Experience
Abtan Al-Talafeh MD, (Jordan)

15:40 - 16:00 256 Effect of lifestyle Adaptations on Nocturnal Acid Reflux in Patients with Barrett's Oesphagus
Kally Alexandropoulou MD, (UK)

16:00 - 16:10 257 Upper Gastrointestinal Service at Prince Hamzah Hospital - Ministry of Health
Maisam Akroush MD (Jordan)

16:10 - 16:20 258 The Consequences of Diarrhea Occurring During Chemotherapy for Colorectal Cancer
Aiman Halloush MD (Jordan)

16:20 - 16:30 259 Significance of Gastric 18F-FDG Uptake in Patients Undergoing PET Scan: Influence of Pattern
Akram Al-Ibraheem MD (Jordan)

16:30 - 16:40 260 Optimal Cut Off Value of Waist Circumference to Predict Composite Cardiovascular Disease in Jordanian Cohort with Metabolic Syndrome
Fares Haddad MD (Jordan)

16:40 - 16:50 261 Spectrum of Glomerular Diseases at King Hussein Medical Center
Ayham Haddad MD (Jordan)

16:50 - 17:00 262 The Main Risk Factors Attributed to End-Stage Renal Disease among Patients on Hemodialysis at Prince Rashed Military Hospital
Sameer Kofahi MD (Jordan)

17:00 - 17:30 Coffee Break

Hall D: Petra Hall 1

Session 1 Ophthalmology
Moderators: Ayman Mdanat MD, Ismael Abu-Arqoub MD, Janet Hina MD

09:00 - 09:30 263 Anterior Uveitis
Teifi James MD (UK)

09:30 - 09:50 264 Lamellar and Plastic Tech niques for Restoring Corneal Shape
Sheraz Daya MD (UK)

09:50 - 10:20 265 Posterior and Intermediate Uveitis
Teifi James (UK)

10:20 - 10:40 266 Inflammatory and Infective Conditions following Corneal Refractive Surgery
Sheraz Daya MD (UK)

10:40 - 11:00 Discussion

11:00 - 11:30 Coffee Break

Session 2 Ophthalmology
Moderators: Hayel Obeidat MD, Haitham Al-Bakri MD, Issam Bataineh MD

11:30 - 12:10 267 Limbal Stem Cell Transplantation
Sheraz Daya MD (UK)

12:10 - 12:40 268 Scleritis
Teifi James MD (UK)

12:40 - 13:10 269 Therapeutic Applications of the Femtosecond LASER
Sheraz Daya MD (UK)

13:10 - 13:30 Discussion

13:30 - 15:00 Lunch Break

Session 3 Pediatrics Oncology
Moderators: Mahmoud Sheyyab MD, Iyad Sultan MD, Mueen Habashneh MD, Mufeed Al Hammouri MD

15:00 - 15:30 270 Current Concepts and Results in the Treatment of Solid Tumors in Children and Adolescents
Gunter Henze MD (Germany)

15:30 - 15:40 271 Extended Spectrum of Allogenic Bone Marrow Transplantation for Children with Primary Immunodeficiency at King Hussein Medical Center
Adel Wahadneh MD (Jordan)

15:40 - 16:10 272 Recent Scientific Aspects on Malignant Diseases
Gunter Henze MD (Germany)

16:10 - 16:20 273 Outcome of Treatment of Pediatric Ewing Sarcoma Family of Tumors, Single Institution Experience
Taleb Ismael MD (Jordan)

16:20 - 16:50 274 Management of Primary Bone Tumors in Children And Adolescents - Own Experience
Gunter Henze MD (Germany)

16:50 - 17:00 Discussion

17:00 - 17:30 Coffee Break

Hall E: Petra Hall 2

Session 1 Gynecology - Endoscopy
Moderators: Ghazi Bsharat MD, Yaser Khaleefeh MD, Wasef Al-Duqum MD

09:00 - 09:20 275 Endoscopic Onco-Surgery
Hans-Rudolf Tinneberg MD (Germany)

09:20 - 09:40 276 Pregnancy Outcomes in Metformin-Treated Women with Gestational Diabetes
Hassan Shehata MD (UK)

09:40 - 10:00 277 Medical and Surgical Therapy of Endometriosis
Hans-Rudolf Tinneberg MD (Germany)

10:00 - 10:10 278 Matenal Mortality in Jordan: Results of the Second ever Study of Maternal Mortality Ratio for Jordan
Zouhair Amarin MD PhD (Jordan)

10:10 - 10:20 279 Laparoscopic Management of Ovarian Dermoid Cysts
Adnan Abu-Omar MD (Jordan)

10:20 - 10:40 280 Obesity – A Time Bomb!
Hassan Shehata MD (UK)

10:40 - 11:00 281 NOTES in Gynecology
Hans-Rudolf Tinneberg MD (Germany)

11:00 - 11:30 Coffee Break

Session 2 Gynecology - Incontinence
Moderators: Khalil Barbarawi MD, Mohammad Daboubi MD, Mahmoud Dabbas MD

11:30 - 11:50 282 Challenges in Pelvic Floor Reconstruction with Synthetic Meshes
Toreston Uwe MD (Germany)

11:50 - 12:00 283 Abdominal Wall Defects: A Review of 20 Cases
Mahmoud Alkhateeb MD (Jordan)

12:00 - 12:20 284 The Use of Minimal Invasive Surgery in the Treatment of Disorders of the Female Pelvis
Toreston Uwe MD (Germany)

12:20 - 12:30 285 Management of Atypical Cervical Pap Smears at KHMC
Ehab Salem Al-Rayyan MD (Jordan)

12:30 - 12:50 286 An Interdisciplinary Approach for Outpatients Suffering from incontinence
Toreston Uwe MD (Germany)

12:50 - 13:00 287 Evaluation of Transobturator Vaginal Tape for the Treatment of Female Urinary Stress Incontinence
Ibrahim Bani-Irshaid MD (Jordan)

13:00 - 13:10 288 Transabdominal Chorionic Villus Sampling for Prenatal Diagnosis at Prince Ali Ibn Al-Hussein Military Hospital, Al-Karak - Jordan
Vera Amarin MD (Jordan)

13:10 - 13:20 289 Adenomyosis in Jordanian Women Undergoing Hysterectomy: A Study of Prevalence, Risk Factors and Preoperative Diagnosis
Mahmood Dabbas MD (Jordan)

13:20 - 13:30 290 The Effect of Oral Contraceptive Pills Pre-Treatment on IVF Outcome in Patients with Poor Ovarian Reserve.
Suhair Wreikat (Lebanon)

13:30 - 15:00 Lunch Break

Session 3 Gynecology U/S
Moderators: Faheem Zayed MD, Nader Murad MD, Hasan Malkawi MD

15:00 - 15:20 291 Structural Anomalies not to Miss in First Trimester Scan: The Experience of the CFEF about the Outcomes of Fetuses with Malformation Discovered before 14 weeks
George Haddad MD (France)

15:20 - 15:40 292 Other Endocrine Disease in Pregnancy
Hassan Shehata MD (UK)

15:40 - 16:00 293 DOPPLER and IUGR
George Haddad MD (France)

16:00 - 16:20 294 Hysteroscopy and Assisted Reproduction : Believe it or not?
Osama Ahmed Shawki (Egypt)

16:20 - 16:40 295 Fetal Scanning in second and Third Trimester
George Haddad MD (France)

16:40 - 16:50 296 Open Testicular Sperm Retrieval for ICSI in Azoospermic Patients: Experience at King Hussein Medical Center
Muafag Barakat MD (Jordan)

16:50 - 17:00 297 A Rare Case of 3 Fetuses in Feto
Maher Maaita MD (Jordan)

17:00 - 17:30 Coffee Break

Session 4 Obstetrics
Moderators: Abdelruhman Albasheer MD, Ayman Qatawneh MD, Ahmad Salem MD

17:30 - 17:50 298 Future of Endoscopic Surgery. Robotic Surgery: Science Fact not Science Fiction
Osama Ahmed Shawki MD (Egypt)

17:50 - 18:00 299 Post Operative and Post Partum Depression among Low Social Class in the North of Jordan
Ahmed Al-Zboon MD (Jordan)

18:00 - 18:10 300 Normal Pulmonary Artery Pressure in Pregnancy
Amer Gharaibeh MD (Jordan)

18:10 - 18:20 301 Obstetric and Gynaecology Experience in Post War Gaza: Problems with Health Care Provision to Women
Khaldoun Khamaiseh MD (Jordan)

18:20 - 18:30 302 2009 Novel Swine- Origin Influenza A(H1N1): A Study of Pregnant Women Admitted to Queen Alia Military Hospital
Mohammad Al-Qudah MD (Jordan)

Hall F: Wadi Rum 1

Session 1 Community Medicine
Moderators: Mumen Hadidi MD, Bassam Hijjawi MD, Malek Dabbas MD

09:00 - 09:30 303 The BIG Idea for Sustainable Health and Healthcare
Harvey Skinner MD (Canada)

09:30 - 10:00 304 National Survey on Waterpipe Use and other Risk Factors for Cardiovascular Disease in Egypt 2002
Mostafa Mohamed MD (Egypt)

10:00 - 10:30 305 eHealth Solutions for Improving Patient Outcome and Revitalizing Healthcare Quality
Harvey Skinner MD (Canada)

10:30 - 11:00 306 Creating a New Medical School: Opportunity for Innovation
Harvey Skinner MD (Canada)

11:00 - 11:30 Coffee Break

Session 2 Military Medicine
Moderators: Mohammad Al-Abbadi MD, Muhammad Al-Quran MD, Mohammad Altarawneh MD

11:30 - 11:40 Introduction

11:40 - 12:00 307 Czech Military Aeromedical Service, its Territorial Civilian Coverage and Military Operational Tasks
Col Antonin DVORÁK MD, (Czech Republic)

12:00 - 12:20 308 Studies of Educational Curriculum about Operational Medicine and Management of Military Health at the Gulhane Military School of Medicine
Maj Yusuf Ziya Turk MD (Turkey)

12:20 - 12:40 309 Medical Support for Counter Piracy Operations
Captain Dale Mole' MD (Bahrain)

12:40 - 13:00 310 Combat medics: Italian experience and law endorsed
Colonel Enzo Liguori
Lt. Gen Michele Donvito (italy)

13:00 - 13:30 other Presentations by
Delegations of Military Medical Services

Details will be provided at the Session

13:30 - 15:00 Lunch Break

Session 3 Community Medicine
Moderators: Madi Al-Jaghbeer MD, Anwar Bateeha MD, Suleiman Abbadi MD

15:00 - 15:30 311 Tobacco Epidemic in EMRO and Developing Countries
Mostafa Mohamed MD (Egypt)

15:30 - 15:40 312 Pandemic Novel Influenza A (H1N1) Infection Experience At Queen Alia Military Hospital
Gheith Al-Hasan MD (Jordan)

15:40 - 15:50 313 Chemical Warfare Mass Casualty Management in Chemical Terrorism
Hashem Al-Abdallat MD (Jordan)

15:50 - 16:00 314 Role of Jordanian Aeromedical Evacuation During War Times (Lebanon 2006)
Ali Refai MD (Jordan)

16:00 - 16:30 315 Magnitude of Hepatitis Infection in EMRO, Africa and Egypt
Mostafa Mohamed MD (Egypt)

16:30 - 17:00 316 Risk Factors For The Development of Diabetes Mellitus In Chronic HCV Genotype 4 Infection
Mostafa Mohamed MD (Egypt)

17:00 - 17:30 Coffee Break

Session 4 Preventive Medicine
Moderators: Jamal Wadi MD, Abdelkarim Ababneh MD, Atallah Al-Issa MD

17:30 - 17:40 317 Childhood Malignancy in Jordan
Abd Al-Kareem Ababneh MD (Jordan)

17:40 - 17:50 318 Iron Deficiency in Hashme Medical Center
Janan Izzet Tur MD (Jordan)

17:50 - 18:00 319 Epidemiology of Imported Malaria Cases among Jordanian Military Peace Keeping Forces, Liberia 2003-2009
Hayel Al-Mohareb MD (Jordan)

18:00 - 18:10 320 Extracting of Enterotoxin for Identified Strains of Staphylococcus Aureus from Meat of Some Poultry Slaughterhouses and Their Workers
Ayman Fathe MD (Iraq)

18:10 - 18:20 321 Screening of Mental Health Status among Elderly Residents in Al-Salt Qasabah District - Jordan 2008
Samar Al-jazzazi MD (Jordan)

18:20 - 18:30 322 Depression and Coronary Heart Disease
Aya Akel MD (Jordan)

Hall G: Wadi Rum 2

Session 1 Surgical Travelers
Moderators: Sir Terence English MD, David Hananeya MD, Mahmoud Al-Masri MD, Tahsin Muhajer MD

09:00 - 09:30 323 Role of Surgery in Palliative Care in Head and Neck Surgery
Daniel Archer MD (UK)

09:30 - 10:00 324 Carotid Artery Stenting with Intravascular Ultrasound
Donald Reid MD (UK)

10:00 - 10:30 325 The Peritoneal Tumour Service, Manchester UK: Activity and Outcomes
Sarah O'Dwyer MD (UK)

10:30 - 11:00 326 A New Treatment for Compression Fracture of Spinal Vertebrae: Vertebroplasty and Kyphoplasty
Nick Hadden MD (UK)

Coffee Break

Session 2 Surgical Travelers
Moderators: Roger N Baird MD, Mahmoud Abukhalaf MD, Bashir Al-Jarrah MD, Salah Halaseh MD

11:30 - 12:00 327 Modern Treatment of Spinal Stenosis
Anthony Fogg MD (UK)

12:00 - 12:30 328 Pushing the Boundaries in Colorectal Cancer
Sarah O'Dwyer MD (UK)

12:30 - 13:00 329 Modern Imaging for Endovascular Planning
Allan W Reid MD (UK)

13:00 - 13:30 330 Endoluminal Grafting of Abdominal Aortic Aneurysms using the New Redeployable Anaconda Device.
Donald Reid MD (UK)

13:30 - 15:00 Lunch Break

Session 3 General Surgery
Moderators: Mustafa Steteyyeh MD, Jamal Haddad MD, Abdelaziz Ziadat MD

15:00 - 15:30 331 Single Incision Laparoscopic Surgery: SILS HPB Surgery
Ameet Patel MD (UK)

15:30 - 16:00 332 How to Avoid Anastomotic Leakages in Laparoscopic Colorectal Surgery?
Tim Tollens MD (Belgium)

16:00 - 16:30 333 New Procedures for Day Surgery: Bariatric Surgery
Ameet Patel MD (UK)

16:30 - 17:00 334 Parastomal Hernia Repair Using a Laparoscopic Modified Sugarbaker ! How I Do it?
Tim Tollens MD (Belgium)

17:00 - 17:30 Coffee Break

Session 4 General Surgery
Moderators: Khalaf Al-Raggad MD, Rfefan Al-Majali MD, Amer Amereh MD

17:30 - 18:00 335 Laparoscopic Video Session
Tim Tollens MD (Belgium)

18:00 - 18:30 336 Laparoscopic Video Session
Tim Tollens MD (Belgium)

Hall H: Mou'ta Lounge

Session 1 Urology
Moderators: Faisal Mousa MD, Nabil Haddad MD, Khalaf Al-Jader MD

09:00 - 09:30 337 Management / Surgery for Anterior Urethral Strictures
Gerald Jordan (USA)

09:30 - 10:00 338 New Aaspects of Ejaculation and its Significance: Ejaculation Preserving Transurethral Resection and Laser Vaporesection of the Prostate
Schahnaz Alloussi (Germany)

10:00 - 10:30 339 Current Concepts for the Management of Penile Amputation Injuries
Gerald Jordan MD (USA)

10:30 - 10:40 340 Percutaneous Management of Large Renal Stones, Experience at Prince Hussein Ibn Abdullah Urology Center
Firas Al-Hammouri MD (Jordan)

10:40 - 10:50 341 Urethral Memokath and our Experience at Prince Hussein Ibn Abdullah Urology Center
Mohannad Al-Naser MD (Jordan)

10:50 - 11:00 342 Actual Results of Intramuscular Intravesical Botulinum Toxin A Injection in the Treatment of Drug Refractory Non Neurogenic Detrusor Overactivity (NNDOA)
Awad Al-Kaabneh MD (Jordan)

11:00 - 11:30 Coffee Break

Session 2 Urology
Moderators: Hakem Al-Qadi MD, Ibraheem Banihani MD, Saeed Ajlouni MD

11:30 - 12:00 343 Detecting Voiding Dysfunction in Men - the Micturition Index as Simple, Mon-Invasive and Cost-Effective Tool
Schahnaz Alloussi MD (Germany)

12:00 - 12:30 344 Surgery for Pelvic Fracture Urethral Distraction Injuries
Gerald Jordan MD (USA)

12:30 - 13:00 345 New Neurophysiological Aspects after Passageric Sacral Nerve Block of S3 Segment
Schahnaz Alloussi MD (Germany)

13:00 - 13:10 346 Long-Term Follow up for Laparoscopic Retropubic Penile Deep Dorsal Vein Ligation for the Treatment of Erectile Dysfunction
Baker ahmed Abbadi, MD, (Jordan)

13:10 - 13:20 347 Retrograde Intrarenal Lithotripsy for Small Renal Stones in Prepubertal Children: Personal Experience.
Lara Alex Abu Ghazaleh, MD, (Jordan)

13:20 - 13:30 Discussion

13:30 - 15:00 Lunch Break

Session 3 Neurosurgery & Plastic Surgery
Moderators: Ahmad Al-Tamimi MD, Mahmoud Wreikat MD, Amer Al-Shurbaji MD

15:00 - 15:30 348 Neurosurgical Management in Neurofibromatosis
Marcos Tatagiba MD (Germany)

15:30 - 15:40 349 The Fronto-Lateral Approach as a New Surgical Approach in Neurosurgery: Advantages and Experience at King Hussein Medical Center
Hasan Al-Jawhari MD (Jordan)

15:40 - 15:50 350 Variety of Complex Congenital Craniofacial Anomalies Presenting to the Craniofacial Unit at King Hussein Medical Center: A 10 years Experience
Khaldoun Haddadin MD (Jordan)

15:50 - 16:00 351 Results of Craniosynostosis Surgery at King Hussein Medical Center Using Cranioplasty Techniques
Nasser Qassed MD (Jordan)

16:00 - 16:30 352 Surgical Treatment of Suprasellar Lesions by the Supraorbital Approach
Marcos Tatagiba MD (Germany)

16:30 - 17:00 Discussion

17:00 - 17:30 Coffee Break

Session 4 General Surgery
Moderators: Tariq Abusbeih MD, Ali Abusini MD

17:30 - 17:40 353 Rubber Band Ligation of Symptomatic Internal Hemorrhoids
Saleh Habahbeh MD (Jordan)

17:40 - 17:50 354 A Five-Year Burn Unit Experience at King Hussein Medical Center: 2005 to 2009
Waleed Haddaden MD (Jordan)

17:50 - 18:00 355 Postoperative Hydrocortisol Wound Injecion and Seroma Incidence in Breast Surgery: Is There a Correlation?
Lamees Arabiyat MD (Jordan)

18:00 - 18:10 356 Gallbladder Stones in Northern Jordanian Adult Females
Yassir Abu-Gazzeh MD (Jordan)

18:10 - 18:20 357 Life Style and Varicose Veins in Gaza Strip
Sahel Hammouri MD (Jordan)

18:20 - 18:30 358 Dexamethasone for the Prevention of Acute and Delayed Nausea and Vomiting in Post Laparoscopic Cholecystectomy Patients
Osama Abu-Salem MD (Jordan)

Hall I: Yarmouk Lounge

Session 1 Pulmonology
Moderators: Natheer Obeidat MD, Firas Hawwari MD, Abdelmunem Sharara MD

09:00 - 09:30 359 Current Therapy for Asthma and COPD
Philip Ind MD (UK)

09:30 - 10:00 360 Eosinophilic Lung Disease
Philip Ind MD (UK)

10:00 - 10:10 361 Acute Radiation Pneumonitis after Radiation Therapy for Non-Small Cell Lung Cancer
Hana Al-Mahasneh MD (Jordan)

10:10 - 10:20 362 Lung Cancer Diagnosis by Bronchial Wash (BW) and Brush Cytology at King Hussein Medical Center (KHMC), Analysis of 6 Year Results
Haytham El-Khushman MD (Jordan)

10:20 - 10:30 363 Arterial Oxygen Saturation at High Altitude , A study on Unacclimatized Jordanian Soldiers Travelled to High Mountain
Khaled Alnadi MD (Jordan)

10:30 - 11:00 364 Pulmonary Vasculitis
Philip Ind MD (UK)

11:00 - 11:30 Coffee Break

Session 2 Neurosurgery
Moderators: Adel Shraideh MD, Nasri Khouri MD, Mohammad Al-Husban

11:30 - 12:00 365 Surgical Treatment of Tumours in Eloquent Areas of the Central Nervous System
Marcos Tatagiba MD (Germany)

12:00 - 12:10 366	Efficacy and Safety of Balloon Kyphoplasty for Vertebral Compression Fractures at King Hussein Medical Center *Ibrahim Bdour MD (Jordan)*
12:10 - 12:20 367	Lumbar Spinal Stenosis: Minimally Invasive Bilateral Microsurgical Decompression Effectiveness At King Hussein Medical Center *Anas Dyab MD (Jordan)*
12:20 - 12:30 368	Spinal Tumors Microsurgical Resection: Experience and Outcome at King Hussein Medical Centers *Feras Haddad MD (Jordan)*
12:30 - 13:00 369	Abstract Epilepsy Surgery *Marcos Tatagiba MD (Germany)*
13:00 - 13:30	Discussion
13:30 - 15:00	Lunch Break

Session 3 Thoracic Surgery
Moderators: Abdellatif Oqlah MD, Fawaz Khammash MD, Nayef Fraiwan MD

15:00 - 15:30 370	Stage Adapted Treatment of Non-Small Cell Lung Cancer *Godehard Friedel MD (Germany)*
15:30 - 15:40 371	Typical Bronchial Carcinoid Tumours: are they malignant? *Mazin El-Jamal MD (UK)*
15:40 - 16:10 372	Hyperthermic Intrathoracic Chemotherapy (HITOC) *Godehard Friedel MD (Germany)*
16:10 - 16:20 373	Minimally Invasive Surgery for the Diagnosis and Management of Mediastinal Diseases: Review of 176 Cases *Fawaz Khammash MD (Jordan)*
16:20 - 16:50 374	Extended Lung Resection using Extra-Corporal Circulation *Godehard Friedel MD (Germany)*
16:50 - 17:00 375	Thoracoscopic Versus Open Decortication in the Management of Stage Two and Three Parapneumonic Empyema *Mohammad Al-Tarshihi MD (Jordan)*
17:00 - 17:30	Coffee Break

Hall J: Harraneh Hall 1

Session 1 Orthopedic Surgery
Moderators: Abdallah Daradkeh MD, Mahmoud Ababneh MD, Mahmoud Odat MD

09:00 - 09:10 376	Percutaneous Trigger Finger Release - A Clinic Experience *Zaid Aleyadah MD (Jordan)*
09:10 - 09:20 377	The Effect of Obesity in the Development of Carpal Tunnel Syndrome *Al-Muthanna Al-Yamani MD (Jordan)*
09:20 - 09:30 378	Shoulder Magnatic Resonance Imaging, analysis of findings at King Hussein Medical Center *Abdullah Al-Shareadeh MD (Jordan)*
09:30 - 09:40 379	Obstetrical Brachial Plexus Palsy Management at the Royal Jordanian Rehabilitation Center *Fadi Rossan MD (Jordan)*
09:40 - 09:50 380	PHILOS Plate for Treating Complicated and Non-Union Fractures of Proximal Humerus *Issam Dahabra MD (Jordan)*
09:50 - 10:00 381	Spontaneous Septic Subscapular Abscess: A Case Report *Sudqi Sarrawi MD (Jordan)*
10:00 - 10:10 382	The Use of Bone Mineral Density for Prediction of Fractures Susceptibility *Nael Al-Kurdi MD (Jordan)*
10:10 - 10:20 383	Functional Outcome for Patients with Lower Limb Amputation *Ali Al-Ghweri MD (Jordan)*
10:20 - 10:30 384	Tropical Pyomyositis of Short External Rotators of Hip *Al-Ajoulin Omar MD (Jordan)*
10:30 - 10:40 385	Revision Surgery in Developmental Dislocation of the Hip *Mahmoud Odat MD (Jordan)*
10:40 - 11:00	Discussion
11:00 - 11:30	Coffee Break

Session 2 W05: Distal Volar Plates DVR Workshop
Moderators: Walid Al-Rashid MD, Shaher Hadidi MD, Issam Dahabreh MD

11:30 - 13:30	**Distal Volar Plates – DVR & Polyaxial Plates Workshop** *Alexandre Nehme MD (France)* *(Sponsored by Al Wafi Group for Marketing & Int'l Trade Co. Ltd)*
13:30 - 15:00	Lunch Break

Session 3 - 4 W06: ACL Repair Workshop
Moderators: Falah Al-Harfoushi MD, Ziad Khasawneh MD, Issa Sawaged MD

15:00 - 18:30	**ACL Repair Workshop** *Alexandre Nehme MD (France)* *(Sponsored by Al Wafi Group for Marketing & Int'l Trade Co. Ltd)*

Hall K: Harraneh Hall 2

Session 1 Nursing
Moderators: Zaid Hayajneh OT, Ibtisam Haddad RN, Hikmat Alakash RN

09:00 - 09:10 386	Estimated of Alcohol Result: A study between 2004 and 2008 at Princess Iman Researches & Laboratory Science *Swasan Alshurafa BSc (Jordan)*
09:10 - 09:20 387	Hemoglobin H Disease, Associated with Alpha 2GlobinGene PolyAdenylation(AATAAA-AATAAG) Mutation (Three Years Experience at Princess Iman Center for Research and Laboratory Sciences) *Heba Abu-Alruz BSc (Jordan)*
09:20 - 09:30 388	The Frequency of Thyroid Dysfunction, Clinical, and Subclinical Hypo-Hyperthyoidism in the North of Jordan *Ahmad H. Bani-Hani Bcs (Jordan)*
09:30 - 09:40 389	Analysis of Prothrombin 20210 Mutation in Jordanian Thrombotic Patients *Asil Khalid MSc (Jordan)*
09:40 - 09:50 390	Evaluation of Plasma Homocysteine Levels in a Selection of MTHFR C667T Individuals" to "Methylenetetrahydrofolate Reductase (MTHFR C677T) Mutation and Homocysteine levels *Rasha Al-Ghrayeb BSc (Jordan)*
09:50 - 10:00 391	Treatment of Scoliotic Patients with Computer Aided Design – Manufacture System *Mohd Khair Nazem (Jordan)*
10:00 - 10:10 392	Reusing the Level-Sensor Holder of the Stöckert S3 Integrated Centrifugal Pump *Abdelhady El-Khatib BMT (Jordan)*
10:10 - 10:20 393	Neonatal bacteremia at Prince Ali Military Hospital; Microbiology and Antibiotic Resistance *Samira Hrob (Jordan)*
10:20 - 10:30 394	Patients' Opinion on Corneal Donation at King Hussein Medical Center *Saleh Saidat BMT (Jordan)*
10:30 - 11:00	Discussion
11:00 - 11:30	Coffee Break

Session 2 W32: Nursing
Moderators: Hala Obiedat PhD RN

11:30 - 13:30	**Caring for older adults: Evidence-based practice in 2010** *Patricia Higgins RN. PhD (USA)*
13:30 - 15:00	Lunch Break

Session 3 W33: Nursing
Moderators: Mona Nsour PhD RN

15:00 - 17:00	**Magnet Hospitals: Stratigic Platform for Quality** *Linda Akins, RN. PhD (USA)*
17:00 - 17:30	Coffee Break

Session 4 Nursing

17:30 - 18:00	Closing Ceremony

INTERNATIONAL GUEST SPEAKERS

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5th International Conference of The Royal Medical Services

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ABSTRACTS

TUESDAY

Hall A Session 1
Nursing & Allied Health Professions

1
The Analgesic Effects of Breast-Feeding During Heel Stick Blood Drawing among Jordanian Newborns

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Objectives: The purpose of this study was to examine the pain-relieving effect of breast-feeding in newborn infants and to compare analgesic effects of breast feeding use with maternal holding during blood collection via heel sticks.
Methods: Design-Randomized controlled trial. Setting-Normal newborn nursery at King Hussein Medical Center. Participants-Full-term breast-feeding infants scheduled for routine newborn screening blood test for hypothyroidism via heel stick were randomly assigned to either experimental group, group I breast feeding (n= 50) or group II maternal holding (n=50). The outcome measure was the Neonatal Infant Pain Scale. This tool is a multidimensional tool based on one physiological and five behavioral parameters.
Results: Two tailed independent t–test of Neonatal Infant Pain Scale scores were statistically significant in which infants who were breast fed during heel stick have less pain as compared with maternal holding (t=-30.68, DF= 98, two tailed, p=0.000),
Conclusion: Breast feeding decreases painful responses of newborns to pain during heel stick blood draws and has more analgesic effect as compared with maternal holding. Breast-feeding and maternal holding should be considered as pain-control measures for the neonate during heel-stick procedures.

2
Maternal Self-Efficacy and Maternal Attachment of First Time Jordanian Mothers

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Objectives: The objectives of this study were: 1- To identify the relationship between maternal self-efficacy and maternal attachment of first time Jordanian mothers. 2- To examine the association between selected sociodemographical and antenatal-perinatal variables and maternal self-efficacy, and maternal attachment of first time Jordanian mothers.
Methods: This descriptive correlational study was carried out with a convenience sample of 220 first time Jordanian mothers who attended the Mother Child Centers in West (Sweileh), middle (Al Nuzha), and East (Marka) regions of Amman. Data were collected by self-reported questionnaire that included three parts discussed the sociodemographical, antenatal - perinatal variables, maternal self efficacy, and maternal attachment.
Results: The study showed that 72.7% of first time mothers reported moderate level of Maternal Self Efficacy, and 65.5% of first time mothers reported moderate level of Maternal Attachment. There was significant correlation between Maternal Self Efficacy and Maternal Attachment (r= .54, P<0.001) of first time Jordanian mothers. Maternal Attachment, previous experience in infant care, and living in extended family were the predictors of Maternal Self Efficacy with Cumulative R^2 =.50, P <0.001. Maternal Self efficacy, perception of marital relationship after infant birth, and perception of pregnancy and delivery experience were predictors of Maternal Attachment with Cumulative R^2 =.33, P <0.001.
Conclusion: The relationship between Maternal Self Efficacy and Maternal Attachment was a reciprocal relationship where the mothers' sense of confidence on infant care increased their affectionate relationship with their infant as they understood their signals or needs and responded appropriately.

3
Nursing: Saving Lives, Improving Patient Care Outcomes

Linda H. Aiken, PhD, RN
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This presentation provides a review and synthesis of the scientific evidence base on best practices in improving quality and safety of care in hospitals. Emphasis is placed upon the return on investment of alternative strategies to maximize the impact of nurses on improving safety and producing excellent patient outcomes. Four types of interventions will be evaluated and contrasted: reducing patient to nurse staffing ratios, improving nurse skill mix, improving the educational qualifications of nurses, and modifying the care environment.

4
Circadian Health: The Relationship Between Sleep-Wake Cycles and Light Exposure Patterns

Patricia A. Higgins, PhD, RN
Associate Professor, Bolton School of Nursing, Cleveland – Ohio (USA)

Since the time of Florence Nightingale, nurses have sought to create the best environment possible for individuals in their care. The purpose of this paper is to provide a review of one the newer areas in health care, circadian health. The review will include the anatomy and physiology of the human circadian system and its link with the 24-hour light-dark cycle and discuss one of the more common types of circadian rhythm disorders: sleep disturbances.
Although sleep disturbances in adults frequently are due to multiple factors, circadian rhythm disturbances may be a more common cause than previously thought. Circadian rhythms are physiologic cycles that exist in all species and are regulated by both internal and external cues that normalize human functioning to a predictable 24-hour rhythm. The light-dark cycle is the most powerful known external cue for aligning or entraining the internal human circadian rhythms and consequently, low light level exposure produces circadian rhythm disturbances, with sleep disruption one of the most common. The sleep disturbances of adults are widely reported and thought to be a normal part of aging, yet many of the causes of sleep disturbances are neither inevitable nor non-modifiable.

One new therapy, circadian light, offers a safe, noninvasive approach that has the potential to improve adults' rest-activity rhythms by increasing rest at night and wakefulness during the day. Two pilot studies, conducted in older adults with dementia, will be used to demonstrate concepts, variables, methods, and results related to the measurement of sleep-wake cycles and the use of circadian lighting applications in clinical populations; for example, evaluation of the features of the individual's physical environment, using a light meter to measure ambient light and an actigraph to record sleep-wake rhythms, and testing newer technology, a circadian dosimeter, to measure exposure to circadian light (blue wave length, approximately 480 nanometers).

Hall A Session 2
Nursing and Allied Health Professions

5
Hospital Quality and Work Force Factor: Cross-National Comparison

Linda H. Aiken, PhD, RN
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We use primary survey data from nearly 100,000 nurses in nine countries that reported on the work environments, workforce outcomes, and quality of care in over 1400 hospitals. The countries were U.S., Canada, U.K., Germany, New Zealand, Japan, Thailand, South Korea, and China. Hospitals in each country were empirically classified on the basis of reports from nurses according to whether various dimensions of the care environments in their hospitals were consistently poor, mixed, or generally better than average. Dimensions of the work environment studied included staffing adequacy, nurse involvement in hospital decision-making, doctor-nurse relations, manager ability and leadership, and foundations for quality.

6
Circadian Rhythms: The Ecology of Human Health and Environmental Interaction

Patricia A. Higgins, PhD, RN
Associate Professor, Bolton School of Nursing, Cleveland - Ohio (USA)

Many of the human body's biochemical, physiological, and behavioral processes have regular temporal rhythms. When the rhythm closely follows the 24-hour day-night schedule, the processes are said to have a circadian rhythm. Human health is adversely affected when these circadian rhythms are disrupted; for example, when traveling across time zones, humans often experience disturbed sleep- wake cycles. Disturbed sleep-wake cycles also occur when a person is institutionalized and therefore, not exposed to the necessary varying levels of light. The purpose of this presentation is to explore the human-environment interaction through a discussion of the human body's internal circadian rhythms and their alignment with the naturally occurring light-dark cycle, the strongest known external or environmental stimulus. This presentation will review research investigating common sleep problems of patients and the regulation of sleep-wake cycles through the use of bright-light therapy.

Objectives:

1-Understand the impact of circadian rhythm disruptions on overall health.
2-Understand the anatomy and physiology of the human eye as it relates to visual acuity and circadian timing.
3-Identify clinical characteristics of circadian rhythm disturbances in humans.

7
Beliefs and Attitudes of Women Undergoing Hysterectomy

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Objectives: This study was designed to identify the beliefs and attitudes of the women undergoing hysterectomy.

Methods: This was a descriptive study utilizing a structured interview schedule for data collection which was developed by the authors following a literature review and was refined following interviews with a sample of women who had a hysterectomy. Thirty-five women, some of whom were waiting surgery and others who had recently undergone a hysterectomy participated in the study. The data collection instrument included questions on sociodemographic variables, characteristics of women's menstrual cycle (e.g. age of menarche, cycle length, flow and regulation), indications of hysterectomy, their attitude toward the procedure and the ability to take a surgical decision of hysterectomy. Data were analyzed by using descriptive statistics.

Results: The results showed that women aged 35-80 (mean age of 50.2) were interviewed. Twenty-one participants were still married. Four were single and ten were divorced or widowed. All married women, except one, had children. Nineteen women had a total hysterectomy (removal of uterus & cervix). Thirteen had subtotal hysterectomy (removal of uterus only) and three women did not know what kind of hysterectomy they had done. The majority of women waited a long time before seeking medical help for different reasons such as limited knowledge about the surgical procedure, considerations about the changes in woman's sexual life, partner's support in hysterectomy decision and their expectations from their gynecologists. Women usually refused hysterectomy because they were concerned about fertility, premature menopause or not being able to fulfill their responsibilities at home or at work. Majority of the women had not received an educational session from their gynecologists.

Conclusion: Most women postponed hysterectomy because they had insufficient information about the surgical procedure, also they did not share their decision taking with the husbands. It is recommended to provide health education sessions for this particular group of women to explain for them the indication for this surgery and to encourage partners to share in the hysterectomy making decision.

8
The Effect of Low- Frequency Alternating Electric Current on Human Skin Cancer Cells

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Objective: To investigating the effect of low frequency alternating electric current (AC) on the growth of human skin cancer cells in vitro.

Methods: In this study, two electric currents of magnitudes 5 and 10 mA peak-peak at a frequency of 60 Hz were delivered to Human squamous cell carcinoma cell line (scc-15) in vitro for a defined period of time after which the effects of this electric current on the growth and proliferation of the cell culture was examined and changes were recorded and analysed. A total number of four multi-dishes were used in the experiment and five of the six wells of each multi-dish were seeded with 3×10^4 cells/ml after counting them using a haemocytometer. Two ml of culture medium were then added to all wells. Electrodes were then placed on top each multi-dish and the electronic circuit switched on and electric current delivered to four of the wells with two wells used as controls. The experimental preparation was performed in a standard Class II Advanced laminar flow Bio-Safety Cabinet over the period of two days. At the end of each day the cells were counted using a haemocytometer and images of the individual wells were taken via Smart View software.

Results: Results of this experiment showed a clear positive effect of low frequency alternating electric current on the proliferation of adherent skin cancer cells with a slightly varying degree between the magnitudes of 5 and 10 mA peak-peak compared with the control group which showed no response.

Conclusion: It was concluded that low frequency alternating electric current significantly induces the growth of human cancer cells. Subsequently, cancer patients must avoid any contact with electric current or be in the vicinity of such electric fields as in the case of physiotherapy treatment.

9
Measuring Patient's Satisfaction as an Outcome of the Nursing Care at Critical Care Areas at Prince Hashim Military Hospital

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Objectives: This study was conducted in an attempt to identify the level of satisfaction with the provided nursing care as perceived by the patients themselves at the Critical Care Unit at Prince Hashem Hospital.

Methods: A Descriptive study design was used to fulfill the purpose of the study. The setting was Prince Hahsem Military hospital which is a 224 bed general hospital. The 13 bed critical care unit receives medical, surgical and gynecology cases. A convenience sample technique was used to recruit 92 conscious patients who were admitted to the critical care unit in the period between 1/3/2009-1/9/2009. Data was collected using the arabic version of a structured questionnaire developed by Megivein, Halam and Jons 1992 assessing patient satisfaction with care. Patients who were able to read and chose to participate in the study were asked to fill the questionnaire after being stabilized and before they were transferred out of the critical care unit to the general ward. The questionnaire consisted of two parts. The first part elicited information on sample characteristics such as age, gender, date of admission, diagnosis on admission and days of hospitalization. The second part was a five point Likert scale consisting of 42 items falling under six dimensions of satisfaction (art of care, technical quality of care, physical environment, availability and continuity of care, promotion of patient autonomy, and patient education). Descriptive data analysis was carried out.

Results: Analysis of responses revealed that the patients in the critical care unit at Prince Hashem Hospital were generally satisfied with the provided nursing care. Out of the 42 items, 23 items were scored (mean 3.59-4.54; SD =0.933–0.657) high, 15 were scored as moderately satisfied and 4 were scored as low. Patients were mostly satisfied with those items related to the art of care (mean = 4.5) and technical

skills of provided care (mean= 4.35). While patients were dissatisfied with the way nurse treat their family during visiting hours, awareness of the patient to the surrounding environment, time the nurse gives to my family during visiting hours and provision of a booklet about the ward.
Conclusion: Patients at Prince Hashim Hospital intensive care were generally satisfied with the provided nursing care. Items revealing low satisfaction were those related to family and nurse communication. Prolonged visiting hours, the number of visitors to the same patient at the same time, culture of the patient and the nurse are expected reasons behind this result. No information booklet was available at the time of the study to orient the patient and family about the ward and hospital.

10
Prenatal Diagnosis of Beta-Thalassaemia by Chorionic Villous Sampling (Experience at Princess Iman Research and Laboratory Sciences Center)

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Objectives: To evaluate the service for intrauterine diagnosis of thalassaemia major in couples with thalassaemia trait by chorionic villous sampling at Princess Iman Research and Laboratory Sciences Center.
Methods: Fifty chorionic villi samples (CVS) from pregnancies at 10-12 weeks gestation, were investigated for affectected fetuses. All PNDs for β-thalassemia were studied and successfully investigated. PND was done by the identification of β-globin gene mutations based on polymerase chain reaction (PCR), reverse–hybridization (Strip Assay) method, and by the Amplification Refractory Mutation System (ARMS) technique.
Results: Of the total 50 CVS samples received, all samples were investigated at our center. The assay covers 27 different β-globin mutations, 10 different mutations were efficiently detected. Fourteen cases of PND (28%) were affected homozygous and compound heterozygous fetuses, 19 cases of PND (38%) were Heterozygous, the following mutations were detected (IVS 2.745(C>G), 1.110(G>A), IVS 2.1(G>A), IVS 1.6(T>C), IVS 1.1(C>A), codon30, IVS 2.848, IVS 1.5(C>G), codon8 (-AA) and codon5[-CT]). The remaining 17 cases (34%) of PND were un-affected fetuses.
Conclusion: PND for β-thalassemia is technically feasible by direct mutation analysis. The procedure is quick, cost effective, with very good acceptability for counseling at our center. By using polymerase chain reaction (PCR), reverse-hybridization (Strip Assay) and ARMS analysis, the mutations were successfully characterized in 100% of the prenatal cases of β-thalassemia. This study suggests that first trimester CVS is a useful technique for prenatal diagnosis. This message can be propagated through thalassemia clinics and thalassemia welfare societies who have a major role of awareness regarding the problem of thalassemia.

11
Diagnosis Of Acute Rubella Infection during Early Pregnancy in Iraq

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Objectives: To study prevalence and method of diagnosis of acute rubella infection during early pregnancy in Iraq.
Methods: Clinical signs and symptoms of acute rubella infection were looked for in 170 pregnant women before 12 weeks of gestation. Serial rubella specific IgG and IgM serological testing was done in these 170 women before 12 weeks of pregnancy, after three weeks, and again at 18-20 weeks of gestation.
Results: Three women had clinical signs and symptoms of rubella infection from 26 women were IgM positive at nine weeks of pregnancy; 94 were IgG+ve but IgM–ve initially and also on repeated sampling after three weeks while 50 women were nonimmune (IgG and IgM negative) in the first trimester, after three weeks and again at 18-20 weeks.
Conclusion: Acute rubella infection was diagnosed by serial serologic screening in (26) women in early pregnancy. Attention may be focused by specific laboratory tests on the high risk group of women. Pre pregnancy universal vaccination is more practical in developing countries like Iraq.

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Mammogram for Male Patients

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Objectives: The aims of this study were to examine male perceptions about mammography procedures and to identify the common signs and sites of breast tumors among male patients referred to our department.
Methodology: Over two years (2007 - 2009), 30 mammograms were done for male patients aged 38 to 80 years in our department. Standard views Cranio Caudle and Medio Lateral Oblique were performed by Computed Radiography–Agfa CR 85X instrument at the Radiology Department in King Hussein Medical Center. The procedure was explained to every patient. The mammographer prevented the breast slipping out from under compression by reducing the amount of compression or using a reverse Cranio Caudle.
Results: The most common findings in the studied patients were bilateral breast enlargement (n=13), left breast mastectomy as follow up (n=1), left breast mass and nipple discharge with ulceration (n=1), and unilateral breast swelling (n=15). Most males included in this study found the mammogram reasonably comfortable, but few of them found the procedure difficult, embarrassing, and considered it to be a female examination.
Conclusion: Mammography is a procedure indicated both for females and males and it is an effective procedure for the diagnosis of breast tumors in both genders. It is important to explain the mammography procedure to male patients and to facilitate their comfort because some of them find this procedure difficult and embarrassing.

Hall A Session 3
Nursing and Allied Health Professions

13
Acute Complications Post Blood Transfusion in Medical Pediatric Ward at King Hussein Medical Center

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Objectives: To study blood transfusion indications, acute non-infectious complications, precautions and guidelines followed at the medical pediatric ward at King Hussein Hospital.
Methods: A prospective study was carried out on 60 pediatric patients who received blood transfusion in the pediatric medical ward from January 2009 to December 2009. The patients' age ranged from one day old to 14 years. Medical records were reviewed. A specially formulated data collection sheet compiled by the authors was used to collect the data. Nursing observation charts for pre and during blood transfusion vital sign monitoring were reviewed as well.
Results: A total of 60 children, 35 males and 25 females, who received blood transfusions were included in the study. The majority were previously healthy and twenty (5%) children were immunocomprimised. Three children were aged less than one month and the youngest was two days old with ABO-incompatibility. Acute reactions were documented in 20 patients. Febrile non hemolytic reactions (20%) comprised the majority of the complications. Only two patients developed anaphylaxis that required intensive care admission. The most common indication for blood transfusion was malignancy (20%), followed by acute gastrointestinal bleeding (10%). Nursing charts documenting observations pre and during blood transfusions were not complete in 20 children. Respiratory rate and pulse rate were not routinely measured. Transfusion time exceeded the

required time of four hours in 10 patients (16 %). None of our patients has a fatal reaction to blood transfusion.
Conclusion: Febrile non hemolytic reactions are common. Further studies are needed to evaluate pre transfusion medications for such reactions. Criteria for blood transfusion monitoring are not routinely followed. Better monitoring systems should be established to avoid fatal reactions

14
Assessing the Perception of Nurses about the Privacy of the Patients

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Objectives: To assess the current practices and problems that are encountered regarding the perceptions of patient privacy among registered nurses at King Hussein Hospital.
Methodology: The descriptive design was used for this study. A convenience sample of 100 registered nurses was selected from both genders with different experiences, who are working in surgical and medical floors, in addition to critical units at King Hussein Hospital. A questionnaire was developed by the researchers and consisted of 20 statements that assessed the current practices and problems that were encountered regarding the perception of patient privacy among the nurses. The four points Likert's scale questionnaire was reviewed by expert panel consisting of nurse educator, nurse administrator and senior nurse colleague to establish its content validity. Data collection was carried out on 14th of January 2010. Response rate was 82% (n=82). The concept of patient privacy was divided into physical privacy and informational privacy. The physical privacy includes preparing the environment that ensure patient privacy before any procedure provided to the patient, like closing the room door or the drape, dismiss the visitors and companies. The physical privacy also includes taking the patient permission to expose any part of his/her body during any procedure. The other type of patient privacy in our study was the informational privacy, which includes Protecting all the information and records concerning patients, and not sharing these information or records with any one outside the patient's medical team without patient' permission.
Results: In our study, 55.5% of the nurses reported they always protected physical privacy and 34.9% reported usually doing this. In our study, just 18.5% of the study nurses were always protecting the informational privacy, 21.9% usually, 26.5% rarely and 32.8% not at all. On the other hand, 53.6% of the study nurses thought that the most common invasions of the patient's privacy was caused by the visitors and patient's companions. Another 36.5% of the study nurses thought that the most common invasions of patient's privacy were caused by the health team members themselves.
Conclusion and Recommendations: An assurance of patient's privacy is necessary to secure effective, high quality health care. Breaches of a patient's privacy compromise ethical health care and undermine patients' confidence in caregivers. Healthcare institutions must provide effective training to minimize these breaches. We hope that the Royal Medical Services will heed the call to improve discretion for the patients who entrust us with their care.

15
Inpatient Satisfaction Survey at Prince Hashim Military Hospital

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Objectives: The purpose of this survey is to identify the level of the satisfaction among inpatients hospitalized at Prince Hashim Hospital.
Methods: The setting of the study was Prince Hashim Military Hospital which is a 224 bed general hospital located in Zarka. An average of 190 inpatients are hospitalized per day. A descriptive / cross sectional design was used for the study. Systemic random sampling (n=200, every 5th patient) was done. The selected patients were interviewed and given explanations about the study and its purpose, confidentiality and anonymity was assured. The patients also signed an informed consent form as evidence of agreement to become a subject in the study. The instrument used for the study is a standardized questionnaire developed by the Quality Office / Directorate of the Royal Medical Services. It is comprised of three parts. Section one elicits information about the hospital name and department, the second section elicits demographic data and the third section includes 30 items assessing satisfaction with the admission procedure, general environment of the hospital, satisfaction with care provided by doctors and nurses, satisfaction with food services, diagnostic services, caring and respect, visiting hours and consideration of patient rights.
Results: Descriptive statistics with mean and standard deviation were calculated for the purpose of this study. The overall satisfaction of patients admitted to Prince Hashem Hospital was ranked to be high in general (mean = 3.103 (77.75%)). The highest level of satisfaction was with the provided nursing care (mean = 3.5 S/D = 0.505) followed by this satisfaction of care provided by doctors (mean = 3.22 S/D= 0.582) satisfaction with the level of respect to his / her rights was perceived to be high (mean = 3.18 S/D=0.691) Areas of moderate satisfaction included diagnostic services (x-Ray, lab, physiotherapy). No areas of poor satisfaction showed up .
Conclusion: Overall, patients admitted to Prince Hashem Hospital are satisfied with the care they received. Further studies on larger samples sizes and in more detailed information about patient satisfaction areas are recommended.

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Perception and Attitudes of Associate Nursing-Degree Students Towards Obesity, Acceptable Body Weight and Weight Control Measures

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Objectives: This descriptive study was conducted to explore the perception and attitudes of Jordanian nursing students attending the Associate Nursing-Degree program at the Royal Medical Services College towards obesity, acceptable body weight and methods of controlling weight. The results will be used to guide the nursing educators for strategies to assess and evaluate these concepts in the program curriculum.
Methods: A convenience sample composed of 120 male nursing students was recruited. Data collection was done utilizing a questionnaire consisting of 40 items divided into four subscales seeking information on demographic data, perception of obesity concept, acceptable body weight, and methods for controlling weight. Responses were made on a Likert scale ranging from strongly agree up to strongly disagree. Cronbach's alpha coefficients ranged from 0.79 to 0.94. All Item-scale correlations were higher than 0.40. Test-retest interclass coefficients ranged from 0.69 to 0.85. The questionnaire was pilot tested on first year nursing student at a non participating college and administered by the researchers at the end of regular class. Data were analyzed quantitatively.
Results: Outcomes of this study indicate that the majority of participants (83%) never used dieting for weight loss and believed they would weigh 3% to 10% less than their current weight if they use diet. Participants who had normal weight, were overweight, or obese who perceived that their current weight is acceptable was 94%, 77%, and 62%, respectively. Eighty percent of the participants reported that they are physically active. Fifty percent of those with normal weight, 57% of those who were overweight and 81% of those who were obese reported eating less than they desire in order to control their weight. About one third of participants with normal weight and overweight use artificial sweeteners, whereas only 5% of obese participants do so. The most prevalent explicit maladaptive weight loss behavior was cigarettes smoking.
Conclusion: A total of 96% of participants had normal body weight due to daily military exercise. Male college students, regardless of weight status, would benefit from open discussions with health educators regarding healthy and effective dieting practices to

achieve/maintain a healthy body weight. The study could be repeated among high school, newly graduated, middle-aged and older nurses.

17
The Use of Microscopic Urine Analysis of WBC Number per High Power Field in the Detection of Urinary Tract Infection in Children

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Objectives: The purpose of this study was to estimate the best microscopic urine analysis of white blood cell number per high power field for detection of positive urinary tract infection culture and to asses the most frequent pathogens responsible for urinary tract infections.
Methods: A total 153-outpatient children, with their age ranging from 5-14 years (71 males and 82 females), were randomly selected. A specimen of urine was obtained from each child, the microscopic analysis of white blood cell number per high power field (WBC/HPF) and urine culture was performed in the laboratory of Prince Rashed Bin Al-Hassan Military Hospital in North of Jordan throughout the year 2008. The Receiver Operating Curve (ROC) analysis used to test the number of urine white blood cell number per high power field were compared with urine cultures which were positive of pathogens.
Results: Microscopic urinary WBC number > 5 per HPF revealed sensitivity to find positive urinary tract culture of 51.0% (95% CI; 36.6-66.2%). The specificity of WBC < 5 cells per HPF to rule-out urinary tract infections is 85.3% (95% CI; 76.9-91.5%). The most frequent pathogens observed in 51 positive growths in descending order were: Escherichia coli (n = 40, 78.4%), Klebsiella (n = 6, 11.8%), Proteus (n = 3, 5.9%) and Pseudomonas (n = 2, 3.9%).
Conclusion: The results suggest that positive cultures cannot be accurately predicted by microscopic urinalysis alone. Escherichia coli was the most common organism isolated followed by Klebsiella.

18
Clinical Significance of Asymptomatic Urogenital Mycoplasma Hominis and Ureaplasma Urealyticum in Relation to Seminal Fluid Parameters among Infertile Jordanian Males

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Objectives: To investigate Mycoplasma prevalence rate among infertile Jordanian patients and to determine the possible role of asymptomatic Mycoplasma hominis and Ureaplasma urealyticum as an infectious factor that might affect semen quality in infertility especifically in varicocele presence.
Methods: Seminal fluids obtained from 99 infertile patients were tested for the presence of Mycoplasma hominis and Ureaplasma urealyticum by polymerase chain reaction and analyzed for motility, counts and viscosity. Thirty-three (27.5%) patients were infertile with varicocele, eight (24.2%) of which had normal seminal fluid parameters, and 25 (75.8%) had abnormal seminal fluid parameters. The remaining 66 (55%) infertile patients showed a decrease in sperm concentration and/or motility. Twenty-one (17.5%) fertile males were used as a control. DNA primer pair's specific for 16S ribosomal RNA gene of Mycoplasma hominis and urease gene of Ureaplasma urealyticum were utilized for PCR.
Results: Mycoplasma hominis and Ureaplasma urealyticum were present in 9 (27.3%), 4 (12.1%) of seminal fluids of infertile-patients with varicocele, 12(18.2%), 11(16.7%) of infertile and only in 3(14.3%), 0(0%) fertile male, respectively. The presence of the two species among infertility cases was significantly correlated (p=0.039). Patients

with varicocele and abnormal SF showed a significant increase in motility grade d (immotile) (p=0.025). Ureaplasma urealyticum was significantly associated with infertility in comparison to the control (p=0.05), and cases without varicocele showed more significant results (p=0.04). It exerts minor effects on the mean values of sperm motility by decreasing a and b grade in such cases.
Conclusion: The difference in the occurrence of Ureaplasma urealyticum was statistically significant among infertility. Mycoplasma hominis occur more frequently in the semen of infertile-varicose male and abnormal seminal fluid quality. The mean value for sperm motility, concentrations, and viscosity were not affected significantly by the presence of the two species. Further studies needed to clarify their potential effect on semen quality and infertility status.

19
Spine Bone Mineral Density Associated with Adolescent Idiopathic Scoliosis

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Objectives: To determine the spine bone mineral density associated with adolescent idiopathic scoliosis.
Methods: A case control study was done at Prince Rashed Military Hospital in the period between March and November 2009. The sample consisted of 15 girls with idiopathic scoliosis and 15 controls without scoliosis. All had bone mineral density measurement of spine using dual energy X-ray absorptiometry scan. A bone mineral density of < –2.6 was taken as osteoporotic and those between < –1 and –2.5 were taken as osteopenic for analysis. The results were analyzed by applying Fisher exact test to find the associations.
Results: The age range of the study subjects was 15-29 years. Mean age of patients with idiopathic scoliosis was 23.3 ± 4.4 years and the age of control was 20.9 ± 5.1 years. Analysis of the scan of the spine revealed that 60.0% of the scoliotic girls were osteoporotic with bone mineral density of 0.469 ± 0.06 (0.371–0.580), T-score –3.8 ± 0.47 (–2.9 to –4.5). Four (26.7%) were osteopenic with bone mineral density of 0.734 ± 0.06 (0.660–0.801), mean T-score of –1.7 ± 0.44 (–1.3 to -2.3). Bone mineral density of healthy control group was significantly higher; 0.867 ± 0.06 (0.72 - 0.94), T-score -0.7 ± 0.48 (-0.06 to -1.8) (P-value < 0.001).
Conclusion: The study demonstrates that the scoliosis is associated with osteopenia and osteoporosis among girls.

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Bacteremia at King Hussein Medical Center, Amman - Jordan

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Objectives: In this study, we aimed to evaluate the aerobic bacteria and their antibiotic susceptibilities isolated from hospitalized patients of King Hussein Medical Center located in Amman/Jordan.
Methods: From January 2007 to 31 December 2007, a total of 6788 blood cultures were investigated. According to the instructions provided by the manufacturer, the inoculated bottles were incubated in the BACTEC 9240 system (Becton Dickinson, Maryland, USA) and Vitek 1 system (Bio Merieux, France) was used for identification of the isolates, using V 1306 Vitek GNI card for Gram-negative isolates, V 1305 Vitek GPI card for Gram-positive isolates. For antibiotic susceptibility testing of the isolates, using V 4313 Vitek GNS-528 card for Gram –negative isolates and V 4511 Vitek GPS-101 card for Gram-positive isolates.
Results: Among these, 1487 specimens (21.9%) showed positive blood cultures, of the isolates 414 (27.8%) were Gram-negative bacteria, 891 (59.9%) Gram-positive bacteria and 104 (6.9%) Candida species and 78 (5.2%) other microorganism. The most frequently recoverd pathogens were Coagulase-negative Staphylococci (51.0%), Klebsiella pneumoniae (7.2%), Escherichia coli (4.4%), Acinetobacter spp.

(4.4%) and Serratia sp. (4.2%). For the Gram–negative isolates the most effective antibiotics were Imipenem (97.90%) susceptibil, Ciprofloxacin (83.60%), Cefapime (83.0%) and for Amikacin (80.30%). Nitrofurantion (99.7%) and Vancomycin (98.6%) were the most effective antibiotics for the Gram-positive isolates.

Conclusion: As a conclusion, every clinical laboratory needs policies and procedures designed to ensure that blood cultures are collected in such a way as to minimize contamination. It is also recommended to apply strict antibiotic guidelines for national usage and to screen frequency for antibiotic susceptibility pattern of microorganisms for effective empiric therapy. Our results indicate that the best empirical treatment in King Hussein Medical Center for sepsis patients consists of Imipenem or Nitrofurantoin or in combination.

21
Patient-Controlled Intravenous Analgesia for Knee & Hip Replacement Surgery

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Objectives: To evaluate the outcomes of postoperative pain treatment using patient controlled intravenous analgesia with morphine after knee or hip arthroplasty using pain scale tools.

Methods: During 2006-2008, 60 total hip replacement and 60 total knee replacement procedures carried out for patients who underwent arthroplasty at King Hussein Medical Center were included in the study. Postoperative pain treatment consisted of patient controlled intravenous analgesia with morphine. The effectiveness of pain treatment and the incidence of side effects were studied.

Results: After total hip replacement procedures 60% (n=36) of the patients had an acceptable pain score on the day of surgery (day zero), nausea occurred in 20% (n=12) and vomiting 25% (n=15) of patients. On day one, these figures were 20% (n=12) and 30% (n=18) respectively. After total knee replacement procedure 50% (n=30) of the patients had acceptable pain at rest on day zero, increasing to 90% (n=54) from day three onwards. On day one, pain during movement was acceptable in 20% (n=12) of the patients increasing to 80% (n=48) on day three. On day zero, following total knee replacement procedure, nausea occurred in 40% (n=24) and vomiting in 50% (n=30) of the patients. On day one these figures were 30% (n=18) and 40% (n=24) respectively.

Conclusion: In view of the somewhat disappointing effectiveness and side effects of the patient controlled intravenous analgesia with morphine adjustments in the treatment for pain following total hip replacement and total knee replacement procedures are required. Patient controlled epidural analgesia can be an alternative method of pain therapy in such orthopedic surgery.

22
Medical Equipment Replacement Planning System (ERPS) in Hospitals

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Introduction: Hospitals and healthcare systems continually need to replace old technology that is no longer cost effective, clinically relevant or that may be obsolete. Most hospitals do not have sufficient capital funds to approve all equipment replacement requests. Typically, a capital planning process yields executive decisions for replacing technology, which are not technical, standardized or performance-based. This paper explains the development of a comprehensive and planned Equipment Replacement Planning System (ERPS), consisting of an analysis methodology and a software package, so that the most urgent and critical replacement requests could be identified and submitted to the approval process for replacement. Relevant data that include general information regarding the devices, preventive maintenance records and service history are imported from the equipment management database into an Equipment Replacement Planning (ERP)

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database created with Microsoft Access. Replacement criteria are developed into programmable rules based on which all devices shall be replaced. These rules are programmed using Microsoft Visual Basic for Applications, to evaluate the data stored in the ERP database. The replacement rules are divided into: - Technical rules; termination of product support, age of device compared to its estimated useful life, availability of parts and support from the manufacturer, failure rate, clinical obsolescence, usability, and physical condition. Safety rules; risk, technology related incidents, use-errors, recalls and alerts. Financial rules; cost of ownership compared to acquisition cost, financial impact of downtime, availability of backup, and standardization. Relative Replacement Number [(RRN=∑ (Normalized values * Weight %) / Number of rules*l00)] is calculated for all devices and customized reports are generated. A master replacement report prioritizes and lists all the devices in the facility. Customized reports grouped specifically for each fiscal year, department, cost center, device type, model, etc. are also generated. A critical replacement report is developed for the most urgent replacement priorities and can be submitted to the capital equipment committee for approval.

Conclusion: The Institute of Biomedical Technology can achieve substantial cost and time savings for the Royal Medical Services and, at the same time, enhance clinical user capabilities and satisfaction. Through this ERPS, medical equipment are guaranteed to be functional "efficiently" for a longer period of time and this will, eventually, lead to a better health care provided to the patients.

23
Modifying the Timer Circuit of the Bego De Waxing Furnace Meditherm used in Dentistry Department at KHMC

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Objectives: To modify the timer circuit of an old dewaxing furnace machine from Meditherm using a different spare part since original spare parts for this machine were not available.

Methods: An original analogue timer of a dewaxing furnace used in King Hussein Hospital made by Meditherm was defective and needed to be replaced with a similar part for the furnace to be repaired. No original spare parts were available and therefore a different, digital timer was fitted to the machine and tested.

Results: The furnace was fitted with a digital timer instead of the original analogue timer and was found to function properly.

Conclusion: As a conclusion we found that analogue timers on dewaxing furnaces can be replaced with digital ones from a different manufacturer with a lower cost and much less time for the spare part to be obtained.

24
The Prevalence of Smoking among Non-Medical Services Providers at King Hussein Medical Center

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Objective: The purpose of the study was to investigate the prevalence of smoking among non medical service providers at King Hussein Medical Center.

Methods: Data were collected using a self-reported questionnaire on cigarette smoking distributed among 441 (208 males, 233 females) non medical service providers working at King Hussein Medical Center. Questions were designed to collect various demographic parameters and different aspects related to cigarette smoking.

Results: Some 208 males, 233 females completed the questionnaire. Age range was 18-34 years. Women constituted 53% of the studied group. The overall prevalence of smoking was 65%. Fifty-six percent of smokers smoked daily, with a mean consumption of 20 cigarettes per day. Smoking was more common among men (82%) than women (47%), 60% of

the males started their habit before the age of 16, while 77.3% of the females started smoking after 20, 33% of the males admitted that the reason for starting smoking habit was due to peer pressure, 35% of the females blamed the social stress, 66% of the males and 55% of the females had not completed their high school education, 45% of the males were married, whereas 40% of the females were married and 18% were divorced, 88% of the whole group never received any formal advice about the dangers of cigarette smoking.
Conclusion: Our results showed a very high percentage of cigarette smoking among non medical service providers at King Hussein Medical Center. Smoking cessation programs should be introduced among this group of hospital workers.

25
Criteria for Choosing a National Hospital Information System

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Objectives: Jordan is committed to implement a national Health Information System (HIS) in its public health sector in the coming few years. As a royal initiative, and for almost twelve months, the E-Health committee at the Royal Hashemite Court, undertook a selection process to select the most appropriate HIS system for Jordan.
Methods: Criteria for choosing a national Health Information System (HIS) that meets the needs of patient care in Jordan, administration, finance, medical education and ongoing changes of healthcare systems was developed . All HIS that have large implementations history were classified and then compared according to the criteria that include the cost of implementation and running of such systems, patient privacy standards, system security, change management processes and system integration capabilities.
Results: Many HIS differ in terms of functionality, hardware, software, architecture platform and use of emerging technologies. Furthermore, Hospital Information Systems for a whole nation are costly especially to third world countries who have limited resources. The selection process has resulted in the development of a unique scoring system that was applied to each HIS system and allowed us to choose the most appropriate system for the country in an objective and fair manner.
Conclusion: Selection criteria were developed that facilitated the selection of a national HIS for Jordan. This will enable the transformation to higher quality patient-centered healthcare delivery system that is more cost-efficient through the access and sharing of electronic health information by all public healthcare providers and administrators in Jordan.

Hall A Session 4
Nursing & Allied Health Professions

26
Phage Therapy: the Road to Acceptance

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Objectives: The systematic overuse of antibiotics has led to the emergence of so-called 'superbugs', bacteria resistant to virtually all known antibiotics. Bacteriophages (phages) are (among) the most abundant and ubiquitous organisms on earth and are the natural 'enemies' of bacteria. They are the 'viruses' of the bacteria and are able to kill them irrespective of their antibiotic susceptibility. As such, they may offer an independent means of infection treatment, which can be combined or switched with antibiotic therapy and may enhance our abilities to treat bacterial infections successfully. But, there are some major obstacles hampering the clinical application of phages: 1) the lack of a specific regulatory frame for phage therapy in the Medicinal Product Regulation; 2) the absence of well-defined, safe and targeted phage preparations; and 3) the false perception of viruses as 'enemies of life'.
Methods: A multidisciplinary 'phage team' was committed to surmount these obstacles through: 1) an analysis of the current European regulatory setting (Verbeken et al. Future Microbiology, 2(5):485-491, 2007); 2) the quality controlled production of well-defined phage cocktails for use in clinical trials (Merabishvili et al., PloS ONE 4(3): e-4944); 3) a small safety trial in the burn wound centre of the Queen Astrid Military Hospital in Brussels; and 4) the creation of an international non-profit organisation for the promotion of phage research and therapy (www.P-H-A-G-E.org).
Results: We were able to produce and apply safe phage cocktails.
Conclusion: We took a first step towards an eventual acceptance of phage therapy.

27
Flowcytometry Analysis of CD55 and CD59 Expression on Granulocytes in Paroxysmal Nocturnal Hemoglobinuria (Nine Years Experience at Princess Iman Research and Laboratory Sciences Center)

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Objectives: To evaluate of CD55 and CD59 antigen expression in population of granulocytes by flow cytometry for detection of the cells possessing paroxysmal nocturnal hemoglobinuria (PNH) phenotype.
Methods: We studied 67 patients during, January 2001-October 2009 (38 females, 28 males aged six month to 50 years) clinically suspected PNH. This presented clinically with hemolytic anemia some with deep vein thrombosis, portal vein thrombosis, aplastic anemia, abdominal pain and, most commonly pancytopenia. Flow cytometry performed on EDTA collected peripheral blood specimens: One hundred micro liter blood sample were immunostained in tubes with following two-color combinations of monoclonal antibodies (Becton Dickinson): Anti CD15 FITC (flourescein-isothiocyanate) / isotype control mAbs, anti CD15 FITC / CD 55 PE(phycoerythrin), Anti-CD15/ CD59, AntiCD15/CD16,The cells were incubated with antibodies for 10 minutes. then a 2-ml volume of FACS-lysing solution (Becton Dickinson) was added to each tube, gently mixed, and incubated for further 10 minutes, centrifuged then the tubes were washed with cell wash (PBS) and centrifuged at 4000 rpm for 4 min. the white cell pellets were resuspended in 0.5 ml FACS Flow and analyzed by flow cytometry using a FACScan flow analyzer and Cell Quest soft ware (Becton Dickinson).
Results: The results of this study show that PNH is rather rare disorder in spite of clinical suspicion. We were able to confirm PNH diagnosis in only 7 patients out of 67 specimens tested, which corresponded to 10% of cases.
Conclusion: Flow cytometric evaluation of CD55 and CD59 antigens in the population of blood granulocytes permits rapid confirmation of diagnosis of PNH, at least in those patients in which complement-dependent cell lysis is relatively low. Moreover, this assay may add to monitoring and prognosis in patients with myelo-and lymphoprolifrerative disorders.

28
Survey of the Jordanian Knowledge and Understanding of Autism

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Objectives: To determine the Jordanian public's knowledge and understanding of autism, and to determine Jordanians' knowledge of effectiveness of behavioral treatment and other therapy choices which can be used with autistic cases.
Methods: This descriptive study is the first national survey of the public's knowledge and understanding of autism. A sample of 250 men and women, aged from 18 years old or older, were randomly selected from Irbid, Ajloun and Mafraq. Data was

collected from the beginning to the end of May in 2009. The participants completed a questionnaire which collected data about demographics, sign and symptoms, choices of treatment, intervention programs, diagnosis, governmental and media roles. Statistical analysis for sample was done through SPSS.

Results: Nearly one in ten (2.5%) respondents said that because vaccines may cause autism it was safer not to have children vaccinated at all. Another 19% were not sure. About eight out of ten (13.5%) respondents know that autistic people of all ages can benefit from treatment and 7% say behavioral therapists are key individuals in the treatment of people with autism. An additional 3% believe behavior therapies are the most effective way to get autistic individuals to maximize their capabilities. About one out of eight (12.5%) survey respondents know a person with autism. They had a better understanding of the disorder, except for its cause, than those who do not know someone with autism. The 39% of respondents who said they knew a person with autism tended to be female (65%), middle-aged (57% were between 29 and 58) and well-educated (35% had at least a bachelor's degree). Respondents who were deemed to be knowledgeable about autism (as determined by those who responded correctly to 18 of 21 factual statements about the neurological disorder) tended to be women (62%), aged 29 to 58 (66%), married (75%), with children (86%) and well-educated with a baccalaureate and/or advanced degree (35%).

Conclusion: Over all there needs to be greater public awareness about autism in Jordan. Autism is one of the fastest growing disabilities in the entire world. The national media can play a big role in educating and helping Jordanians to understand autism and increase their awareness about services for autism. In Jordan behavioral treatment for the autistic is a new program and needs cooperation between private and public sector to implement it and ensure its effectiveness.

29
Advanced Grandmother Maternal Age and Maternal Age as Risk Factors for Down Syndrome in a Group of Jordanian Families

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Objectives: To study whether advanced maternal age and maternal grandmother age are associated with increased risk of Down syndrome siblings in a group of Jordanian families.

Methods: This prospective study was conducted on 127 confirmed Down syndrome cases with the age range of 18 weeks gestation to 15 years old, who were referred between the period of 2005-2008 for cytogenetic analysis at the Cytogentics section at King Hussein Medical Center. Maternal and grandmaternal mother age were obtained directly from the study group when the samples were collected from siblings. The maternal age ranged between 19-45 years while the maternal grandmother's age ranged between 15-49 years. One hundred healthy families were randomly recruited from the hospital staff as a control group. Logistic regression was used for statistical analysis.

Results: One hundred seventeen Down syndrome cases had free trisomy 21, seven with translocation, two mosaic and one with double aneuploidy (47, XXY, +21). Fifteen cases were diagnosed prenatally while 112 were diagnosed postnatally. The effect of maternal age and maternal grandmother age were found to be significant using logistic regression statistics for the mother's age (P = 0.001; OR= 2.816; 95%CI, 1.48-5.33) and for grandmother's age (P = 0.001; OR= 2.902; 95%CI, 1.521-5.53).

Conclusion: Advanced maternal and maternal grandmother ages are risk factors for Down syndrome. More studies and investigations are needed for better understanding of the biological factors responsible for the proper meiotic segregation of germ cells during the fetal development of the embryo in advanced maternal and grandmother's age.

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Royal Medical Services

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The Impact of Chronic Diseases and Treatment Modality on Quality of Life Among Cardiac Patients in Jordan

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Objectives: To examine the differences in quality of life among cardiac patients in relation to treatment modality provided (percutaneous coronary catheterization, surgery, or medical treatment), gender, economical status, and activity performance.

Methods: A quantitative non-experimental correlation design was utilized to guide this study. A sample of 162 patients equally distributed according to gender was recruited during four months period from the in patients Queen Alia Cardiac Center. Participants completed a quality of life assessment questionnaire using European Organization for Research and Treatment of Cancer Quality of life (EORTC QLF-c30 version 3) which includes global health scale, functional scale, and symptoms scale items.

Results: A total of 118 patients completed the assessment questionnaires (59 male and 59 female). Results revealed that diabetes patients have significantly quality of life less than none diabetic patients (p=.000), and significantly low quality in hypertensive patients compared with none hypertensive patients (p=.033), but no significant differences in relation to renal failure, heart failure, or treatment modality.

Conclusion: Cardiac patients performing exercises have increased quality of life than those whom are not performing exercise, and men with cardiac disease indicated significantly higher quality of life than women. Strategies to increase the practice of exercises are important for health and well being of cardiac disease patient, and gender differences have to be taken in consideration when taking care for cardiac patients.

31
Isodicentric X Chromosome in a Primary Amenorrhea Female with Turner Syndrome Phenotype

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Introduction: Turner syndrome is most commonly associated with a 45,X karyotype and presents, in general, with an array of phenotypes including poor viability in utero, ovarian failure and infertility, short stature lymphodema, and other congenital malformation. They are usually not mentally retarded. This report describes a rare case of structural chromosomal abnormality of Isodicentric X chromosome in a 15-year old female referred to the cytogenetics laboratory at Princess Iman Center from endocrine clinic with primary amenorrhea, short stature and no secondary sexual characteristics. This structural abnormality was not previously reported in the literature

Methods: Cells from PHA-stimulated peripheral blood cultures underwent two types of staining: (i) GTG-banding and (ii) C-banding. To confirm our findings, Fluorescent in situ Hybridization (FISH) for centromeric region was performed

Results: All metaphases from stimulated lymphocyte cultures showed a large isodicentric X chromosome replacing one of the two normal X chromosomes. FISH confirmed the presence of two centromeres in the large dicentric X chromosome. C-banding showed that this chromosome consists of two X chromosomes fused by their short arms with one functional centromere

Discussion: The explanation of the clinical effect of this chromosomal abnormality remains obscure. Short arm deletion tends to be associated with turner syndrome probably because many genes are located on the short arm of X chromosome. A common duplication deletion abnormality is the isochromosome Xq. Patients who carry this abnormality are undistinguishable from those who carry 45, X karyotype except autoimmune disorder and hypothyroidism. Patients with a dicentric X that results from

the fusion of two X chromosomes by either their short or long arms have phenotypes similar to those of i(Xq) patients. No record of a similar case has previously been reported in Jordan nor in the literature

32
Challenges Meet Home Modification Program for Spinal Cord Injured Patients

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Objectives: The aim of this study was to clarify the main challenges met by spinal cord injured patients requiring a home modification program provided by occupational therapists.
Methods: We conducted a home modification study on a sample of 22 patients (5 females and 17 males) aged 10 to 65 years. The study was conducted by the occupational therapy team in Royal Rehabilitation Center during the 2000 to 2006.
Results: Both the patients' financial status and family awareness affected the home modification program and its outcome. The gender of the patients also affects the home modification program. Furthermore the environment outside and the type of home as well as its location appears to affects the home modification program. Most of the spinal cord injured patients who received benefits were females. It was noted that patients with low spinal cord lesions had received home modification program benefits more than paraplegic patients with high lesions and tetraplegia. In addition, paraplegic clients with high lesion in spinal cord have received benefits more than tetraplegic patients.
Conclusion: Home modification program may provide the means for all spinal cord injured patients in their home to be reach their maximum independence potential. It appears that spinal cord injury patients' awareness and their families' awareness, their resources, financial status, level of injury, home style and location all are important factors which should be considered when managing the home adaptation program for these patients.

Hall B Session 1
Endocrine & Cardiology

33
FAQs (Frequently Asked Questions) in Thyroid Practice

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This presentation will include a number of Frequently Asked Questions (FAQ) in thyroid practice. The format will be presenting a brief case, discussing clinical issues, reviewing facts, and making a final recommendation.
The following cases will be briefly discussed:

- Subclinical hyperthyroidism
- Subclinical hypothyroidism
- Thyroid nodule
- Indications for thyroid ultrasound
- Indications for radioiodine thyroid scan
- Thyroxin suppressive therapy: Yes or No
- Treatment of choice in hyperthyroidism
- Antithyroid drug therapy
- Management of patient with a multinodular goiter
- What is uncontrolled hypothyroidism?
- Why is thyroid cancer increasing?
- What common drugs interfere with thyroid function?
- The problem of thyroid incidentaloma

34
Does Revascularization Prevent Cardiovascular Complications in Noncardiac Surgery?

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Thrombotic occlusion of coronary stent has been a concern since the introduction of coronary stenting in 1986. Poor clinical outcomes usually occur despite successful restoration of blood flow. The combined end point of death and non-fatal MI exceed 70%. Risk factors for acute and subacute stent thrombosis are multifactorial in origin such as stent, patient and/or operator factors. Surgery increase risk of perioperative stent thrombosis by increasing the plasma procoagulant activity which could increase the tendency for thrombosis. For patients who undergo successful coronary intervention with or without stent placement before planned noncardiac surgery, there is uncertainty regarding how much time should pass before the non-cardiac procedure is performed, primarily because of the fear of stent thrombosis.
The published current ACC/AHA PCI and CABG guidelines considered coronary revascularization before noncardiac surgery as Class I indication in patients with stable angina who have significant left main artery disease, 3-vessel disease or have 2-vessel disease with significant proximal LAD stenosis and either EF less than 0.50 as well as in patient with acute myocardial infarction. In the other hand, A 2007 AHA/ACC/SCAI/ACS/ADA science advisory report concludes that premature discontinuation of dual-antiplatelet therapy markedly increases the risk of catastrophic stent thrombosis and death or MI; for that reason elective procedures for which there is significant risk of perioperative or postoperative bleeding should be deferred until patients have completed an appropriate course of thienopyridine therapy (12 months after DES implantation if they are not at high risk of bleeding and a minimum of 1 month for bare-metal stent implantation) by which time stents are generally endothelialized and antiplatelet therapy completed.
In conclusion, in patients with stable CAD, the indications for PCI in the preoperative setting should be identical to those developed by the joint ACC/AHA Task Force that provided guidelines for the use of PCI in patients with stable angina and asymptomatic ischemia. There is no evidence to support prophylactic preoperative percutaneous revascularization in patients with asymptomatic ischemia or stable angina.
The purpose of this presentation, Dr Wael Al-Husami will provide a comprehensive review of the value of percutaneous coronary intervention prior to surgery if any and to review the current updated guidelines and treatment strategies for patients who required non-cardiac surgery.

35
Congestive Heart Failure, Are We Sure We Know What We Should Do?

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Far more prevalent than Acute MI, decompensated heart failure is also more dangerous. It is the most common reason for individuals over 65 to be admitted to the hospital, and they get admitted repeatedly. What is the best initial treatment?

36
Heart Disease & Anticoagulation Use During Pregnancy.

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Advances in medical and surgical therapies make Congenital Heart Disease in pregnancy and increasingly common phenomenon. That advancement has yielded a population of women of childbearing age with heart disease requires an experienced multidisciplinary team approach including Cardiologists, Obstetricians, Primary care providers, Midwives and Tertiary care center. The evaluation and management of heart disease in the pregnant patient requires an understanding of the normal physiological changes associated with gestation, labor, delivery, and the early postpartum period.
Valvular heart lesions associated with high maternal and fetal risk during pregnancy. However, many patients with valvular heart disease can be successfully managed throughout pregnancy and during labor and delivery with conservative medical measures designed to optimize intravascular volume and systemic loading conditions. Some woman may need prosthetic valves and the performance of cardiac valve surgery is a complex undertaking in the pregnant patient. Recommendations for choice of the prosthetic heart valves are based on the durability of prosthesis, necessity for anticoagulation, risk of thrombo-embolism and bleeding, re-operation rate, hemodynamic performance of the prosthesis and possible future pregnancy. Women with prosthetic heart valves exhibit a heightened risk of thromboembolic events during pregnancy.

Anticoagulation with warfarin provides protection against these complications, but the use of this drug increases the risk of embryopathy. While pregnant women with bioprosthetic valves are typically spared the need for anticoagulation, they have a higher incidence of valve failure than nonpregnant patients. Thus, the approach to management of pregnant women with prosthetic heart valves differs in some ways from that of other patients. The clinical management of pregnant women with prosthetic heart valves during pregnancy has been difficult and the use of anticoagulation continues to be problematic.

The ACC/AHA guidelines recommend warfarin as the anticoagulant of choice in this patient group through the 35th week of pregnancy. After the 36th week, however, heparin should be substituted for warfarin; should warfarin continue to be used, a caesarian section should be performed to reduce the risk to the anticoagulated infant. The guidelines do not yet recommend any use of LMWHs; it has been suggested that their use be limited to patients with contraindications to unfractionated heparin. Guidelines for the management of the pregnant patient with a mechanical prosthesis have been difficult to formulate due to the lack of adequate prospective randomized controlled trial data.

The purpose of this presentation, Dr Wael Al-Husami will provide a comprehensive review of pregnancy in women with prosthetic heart valves and the impact of anticoagulation with either warfarin or heparin in the recent therapeutic era and the current controversies surrounding the use of anticoagulation in pregnant women with prosthetic heart valves.

Hall B Session 2
Emergency Medicine & Cardiology

37
Clinical Guidelines

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Guidelines are sprouting everywhere from stroke treatment to sprained ankles. They raise many questions (Where do they come from?, are they valid?, do people use them?, are they better for patients?). The presentatoin will try to focus on the answers to these questions and see how guidelines apply to everyday practice.

38
Intracardiac Echocardiography in The Catheterization Laboratory

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Intracardiac echocardiography (ICE) is slowly replacing transesophageal echocardiography as the preferred imaging tool to guide device closure of atrial septal defects and patent foramen ovale. Further, with the emergent new technology of percutaneous valve repair/replacement, ICE is being used more frequently to monitor various procedural steps.

Standard views obtained by ICE include home view "neutral view' that delineates the tricuspid valve and right ventricle inflow and outflow; the septal view that delineates the septum and the defect; the long axis view that delineates the superior vena cava, the defect and the left atrium and the short axis view that delineates the aortic root, the septum and the left atrium.

The use of ICE in small children with atrial communications who undergo device closure of their defects provide better images of the atrial septum and the various stages of device closure. Specifically, the left atrium is better visualized using ICE since using TEE may not yield good views of the left atrium.

With the emerging new technologies of percutaneous valve repair and replacement, the use of ICE to guide these procedures will become very important. We currently use ICE during percutaneous pulmonary valve implantation and the views that we obtain directly from the right ventricle enable us to assess gradient and insufficiency across the valve.

Some may argue about the cost effectiveness using ICE vs TEE. We have looked into this issue and have found that ICE was more cost effective in guiding ASD/PFO closure compared to TEE.

39
Continuous Retrograde Cold Blood Cardioplegia Decreases the Incidence of Postoperative Arrhythmias.

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Objectives: To assess the influence on myocardial protection of the rate of infusion (continuous vs. intermittent) of cold blood cardioplegia administered retrogradely during aortic cross-clamping. The end-points were spontaneous recovery into sinus rhythm and incidence of postoperative arrhythmias.

Methods: This prospective double blinded study consisted of 2 groups of patients underwent isolated coronary artery bypass surgery,134 patient in each group, the two groups matched well regarding age, gender, left ventricular ejection fraction, comorbidities, and EuroScore. In group I, the myocardial protection protocol consisted of an induction dose of antegrade cold crystalloid cardioplegia alternated with retrograde cold blood cardioplegia, then intermittent boluses of retrograde cold blood cardioplegia every 15-20 minutes for maintenance , with local hypothermia using slashed ice and drift of systemic temperature to 30-32°C.In group II ,myocardial protection protocol was the same except that maintenance continuous retrograde diluted cold blood cardioplegia (1/8 concentration), 50cc/min were infused during aortic cross clamping. Both groups received the hot shot, 5-10 cc/kg with a flow pressure in the coronary sinus of 30-40 mm Hg, just before removing the aortic cross clamp.

Results: After completion of the distal anastomosis and declamping the aorta, spontaneous recovery of the heart into sinus rhythm without the need for DC shock was observed only in 75% in group I while it was 90% in group II. Incidence of transient atrial and or ventricular arrhythmias was 15% in group I, while it was 4% in group II. Incidence of atrial fibrillation persisting more than 48 hours was 2% in group I and only in 1% in group II.

Conclusion: Incidence of transient and persistent postoperative arrhythmias is less in patients receiving continuous retrograde cold blood cardioplegia.

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Percutaneous Interventional Approach in Bypass Graft Revision Immediately after CABG with Completion Coronary Angiography

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Objectives: A hybrid operating room in the cardiac catheterization lab allows the performance of intraoperative completion angiograms to assess revascularization immediately after coronary bypass grafting. We report the results of our initial experience with immediate percutaneous coronary intervention on bypass grafts and native coronary arteries.

Methods: Between 04/05-07/07, 366 consecutive patients underwent CABG surgery, with (n=112) or without (n=254) concomitant "one-stop" PCI, all with completion angiography before chest closure. Among the 112 "one-stop" hybrid CABG/PCI patients, 67 (60%) underwent "planned" hybrid procedure after preoperative assessment by the interventional cardiologist and surgeon while 45 (40%) of underwent open-chest PCI ("unplanned" hybrid) based on intraoperative findings

Results: Among the 796 routine CABG grafts, 97 (12%) angiographic "defects" where identified. Fifty-four of 796 (6.8%) were located in the conduit, 30/796 (3.7%) at the distal anastomosis, and 13/796 (1.6%) were target vessel errors. Defects were repaired with either a minor adjustment of the graft (n=22, 2.8%), with intra-operative open-chest (unplanned) PCI (n=48, 6%) or with traditional open surgical revision (n=27, 3.4%).

Conclusion: Completion coronary angiography immediately after CABG detects graft defects that affect immediate and long term graft patency and cardiac function. Revisions are necessary and can be achieved by surgical or percutaneous approaches. PCI can be readily applied in hybrid OR/Cath lab and provide excellent results. Technical considerations and potential pitfalls will be discussed.

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Device Closure of Atrial Septal Defects in The Elderly Patient

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While the technical aspects of treating the elderly patient with atrial septal defects are not dissimilar to the treatment of younger patients, there are however important pathophysiological differences that may negatively impact on how ASD closure is tolerated. This is especially the case in older patients with evidence of left ventricular diastolic dysfunction. Closure of a large interatrial communication in 'unprepared' patient with left ventricular diastolic dysfunction can lead to a significant increase in left atrial pressure due to the loss of "pop-off" via the atrial septum, with resulting pulmonary edema and ventilator dependency. Therefore, the left atrial/wedge pressure should be evaluated at baseline as well as after test occlusion of the defect. Even though a small increase in left atrial pressure may be reasonably well tolerated, an increase in left atrial pressure of more than 5 mmHg from baseline measurement, can be clearly prohibitive to occlusion of the septal defect. The treatment of any patient in whom these physiologic changes are expected, should be optimized prior to engaging in any transcatheter procedure and include aggressive diuretic therapy as well as afterload reducing agents. If a patient, despite appropriate pretreatment, still develops significant left atrial hypertension after test-occlusion, the placement of a fenestrated device may be beneficial Further, I'll discuss in this talk, closure of large ASDs and some technical tips to achieve good closure result.

Hall B Session 3
Anesthesia

42
Transoesophageal Echocardiography for Mitral Valve Repair

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The mitral valve is a complex apparatus consisting of different components: the annulus, the anterior and posterior leaflets, the chordae tendineae, the anterolateral and posteromedial papillary muscles, the left ventricular wall, the left atrium.
The annulus, completely encircleing the valve orifice, can be distinguished in anterior and posterior annulus. The posterior part is composed of myocardium, and extends posteriorly from the left and right trigones. The anterior annulus is composed of fibrous tissue and is in continuity with trigons and aortic valve. The annulus is a saddle-shaped ellipse during systole, whereas it is round-shaped at end-diastole. The posterior part of the annulus is poorly supported and is prone to dilation. In contrast, the trigons and the left and non-coronary cusps of the aortic valve behave like a hard barrier anteriorly, preventing the anterior annulus from dilating under disease condition.
The posterior leaflet of the mitral valve has the base attached along two-third of the circumference of the annulus. The anterior leaflet, somewhat triangular in shape, has the base attached along one-third of the annulus.
The surface area of the anterior mitral leaflet plus that of the posterior mitral leaflet is twice that of the mitral orifice: this allows for large area of coaptation. The two leaflets are joined at the anterolateral and posteromedial commissures on the anterolateral and posteromedial sides of the mitral valve.
In order to have a common language, in the last years the anatomy of mitral leaflets is referred to by using the Carpentier nomenclature. Acconding to this, the posterior leaflet is divided into three scallops named P1, P2 and P3. P1 is the lateral scallop, anterior according a TEE view. P2 is the middle scallop. P3 is the posterior following a TEE view. The anterior leaflet is also divided into three segments,

A1, A2 and A3, each of them being located in front of the corresponding scallop of the posterior leaflet.
Each leaflet receives cordae from both the papillary muscle, with a simmetric distribution: the anterior muscle sends cordae to the anteromedial parts of both leaflets, the posterior papillary muscle sends cordae to the posteromedial parts of both leaflets. This means that each papillary muscle has a strong relation with its respective commissural area.
The subvalvular apparatus, muscles and cordae, regulates the relationship between the annulus and base of the heart and the ventricle apex during systole, thereby facilitating the longitudinal shortening of the left ventricle. It also supports the leaflets, promoting coaptation and preventing scallops from prolapse in systole.
The left ventricle has a relevant role in the mitral valve function. It represents the base to which papillary muscles are attached, and so any functional and geometric impairment in this area of myocardium can affect the relationship between papillary muscles and leaflet.
All the components of the mitral valve interact to guarantee a normal mitral valve function, which means a competent mitral valve during the systolic phase of the cardiac cycle.
The normal mitral valve function is based on integrated function of all the components, which can be analized in details: Leaflet apposition, Leaflet coaptation, Annulus contraction: systolic anteroposterior diameter is 30% shorter than diastolic, Left ventricle contraction, Relationship between cordae and leaflets, Relationship between cordae and annulus, Biodynamic mechanism: balance between closing and opening forces.
In order to evaluate the valve function it is necessary to focus on the whole apparatus by a thorough examination: first a morphologic evaluation, with 2-D echo in order to study the anatomy; then a functional evaluation, with 2-D and color Doppler in order to understand mechanism of disease.
TOE examination based on standard views, performed with systematic approach can investigate all the entities involved in the mitral valve and each side of the complex interactions.

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Laryngeal Mask Airway Replaces Endotracheal Intubation - Step Forward or Back?

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Laryngeal Mask Airway Replaces Endotracheal Intubation - Step Forward or Back?

- Describe the chronology of intubation and review the common indications for intubation.
- Review advantages and limitations of supralaryngeal airways.
- Review appropriate situations for use of surpralaryngeal airways.
- Compare complications of intubation and use of supralaryngeal airways.

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Pathophysiology, Diagnosis and Treatment of Peri-Operative Acute Renal Failure

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Introduction: Acute kidney injury (AKI), previously referred to as acute renal failure (ARF), is one of the most frequent peri-operative complications in patients undergoing major surgery (10-23%) and it is associated with high morbidity and mortality that can exceed 60% in patients requiring dialysis. It can be defined as the sudden and sustained fall in glomerular filtration rate with consequent accumulation of catabolites and body water. Several predisposing factors are known including pre-existing renal dysfunction, co-morbidities (diabetes, arterial hypertension), hypovolemia and sepsis. An increasing risk in developing AKI has been demonstrated in patients receiving radiocontrast dye, in patients undergoing cardiac surgery, in mechanically ventilated patients and in critically ill patients.
Despite significant improvement in diagnostic and therapeutic approaches ARF remains a serious clinical challenge. One of the major limitations in the early diagnosis of ARF is the lack of predictive markers that could help to identify progressive renal impairment. Commonly AKI is associated with an increase in serum creatinine and blood urea levels.

Definition: Several definitions exist. A uniform definition of AKI is not available because of a lack of consensus. Recently definitions have been proposed by the AKIN (Acute Kidney Injury Network). Among them the Second International Consensus Conference of the Acute Dialysis Quality Initiative has suggested a new classification for AKI called RIFLE. The acronym stands for Risk of renal dysfunction, Injury to the kidney, Failure of kidney function, Loss of kidney function and End-stage renal disease. It is a multi-level classification that matches the decreasing rate of glomerular filtration and associated increase in serum creatinine levels with the fall in urine output, in an attempt to standardize the definition of AKI by classifying renal dysfunction on the base of serum creatinine changes and urine output.

Pathophysiology of acute renal failure: On the basis of causes and pathophysiological mechanisms, AKI has been divided into three groups: pre-renal (30-60%), renal or intrinsic (20-40%) and post-renal or obstructive (1-10%). Under normal conditions the kidney blood flow is about 20% of the total cardiac output (~ 1 l/min) with an oxygen delivery of about 80 ml/min every 100 gm of tissue. The blood flow distribution in the kidney is not uniform; it is most prominent in the cortex (> 90% of the total blood flow). At the same time, the oxygen consumption is ~ 10% of the total body oxygen extraction. Thus, renal oxygen extraction is very low and suggesting that the kidney has a wide oxygen reserve. Despite high perfusion and a low fraction of oxygen extraction, the kidney is extremely sensitive to hypoperfusion and hypotension. This is due to the different distribution of blood flow and oxygen extraction in the two portions of the kidney. The cortex is better perfused but less oxygenated than the medulla. The medulla requires about 80% of the total oxygen supply to support tubular reabsorption of sodium and chloride. A decrease in blood perfusion and oxygen delivery is poorly tolerated by the medulla with consequent ischaemia and acute tubular necrosis even if perfusion decreases by 40-50%. The main determinant of medullary oxygen requirement is the rate of tubular reabsorptive function of sodium and water.

In the critically ill patients and in the peri-operative setting, acute renal dysfunction is most often initially due to a pre-renal injury caused by renal hypoperfusion secondary to systemic hypotension. Hypovolemia, either absolute or relative, severe sepsis or septic shock, cardiogenic shock, and cardiac tamponade are some of the major predisposing factors of medullary ischaemia and acute tubular necrosis.

Diagnosis: In clinical practice AKI continues to be defined and diagnosed only in terms of changes in serum creatinine levels and urine output measurement. However, it must be remembered that serum creatinine rises slower and later than glomerular filtration rate decreases because of a large intrinsic renal reserve. Serum creatinine levels change significantly from the baseline only when the glomerular filtration rate decreases by least of 50%, and the raise in serum creatinine is evident 48-72 h after the initial renal injury. In addition, it is well known that serum creatinine can be influenced by many extra-renal factors such as age, gender, race, metabolism, muscle mass and that it can be altered in various clinical settings. Serum creatinine can increase in many situations like trauma, fever and immobilization or decrease when liver dysfunction or reduction in muscle mass occur. Urine output measurement can be influenced by extra-renal factors as fluid balance or post-operative endocrine alterations.

Early diagnosis of AKI is mandatory to permit prompt and adequate treatment. Recently, in an effort to evaluate biomarkers that correlate with renal function and that could be easily and reliably detected after renal injury, several biochemical markers of renal impairment have been identified. An adequate biomarker for clinical application should be easily and routinely detectable; it should be non-invasive and reliable, and also highly sensitive to allow an early diagnosis and have a wide cut-off value to perform risk stratification.

In the last few years several new biomarkers have been identified. Although there have been a large number of biomarkers of AKI identified or under investigation, most of the current interest has focused on Cystatin C and neutrophil gelatinase–associated lipocalin (NGAL).

Cystatin C: Cystatin C is a cysteine

protease inhibitor that is synthesized by all nucleated cells. Its blood levels are relatively constant because it is completely filtered by the glomerulus, reabsorbed at the proximal tubule level and not secreted. Cystatin C blood levels are not influenced by extra-renal factors such as age, gender or others physical or metabolic affections. It is considered a significant index of altered glomerular filtration, better than serum creatinine, in patients affected by chronic renal disease and a strong predictor of AKI. Several investigations have demonstrated that serum Cystatin C increases earlier than serum creatinine levels but later than NGAL. However, Cystatin C did not outperform serum creatinine in the early diagnosis of AKI.Therefore, Cystatin C can be considered a significant marker of reduction in glomerular filtration but not an index of kidney injury. It is very sensitive marker of injury when the glomerular filtration is affected, but it cannot distinguish among different kinds of injury. Cystatin C levels are available in few minutes and easy to obtain, and are not influenced by routine clinical storage conditions, freeze/thaw cycles, the presence of interfering substances, and the pathogenesis of the AKI.

Neutrophil gelatinase - associated lipocalin: Human NGAL is an immunological protein covalently bound to gelatinase from neutrophils. In healthy people it is expressed at very low levels in several human tissues (kidney, lungs, stomach, colon) and its concentration rises after tissue injury as expression of epithelium damage. NGAL concentrations are elevated in patients with acute bacterial infections, with asthma or chronic obstructive pulmonary disease.

Several investigations in critically ill patients affected by ARF documented an increase of 50% of the baseline in serum creatinine levels, and demonstrated an increase in serum and urine NGAL levels compared with normal values. In a cross-sectional study of adults in ICU with established ARF (defined as a doubling of the serum creatinine in less than 5 days) secondary to sepsis, ischaemia, or nephrotoxins, displayed a greater than ten-fold increase in plasma NGAL and a greater than 100-fold increase in urine NGAL by Western blotting when compared with normal controls. Both plasma and urine NGAL correlated well with serum creatinine levels. These results identified NGAL as a widespread and sensitive response to established AKI in humans.

In children undergoing cardiopulmonary bypass, AKI (defined as a 50% increase in serum creatinine) occurred in 28% of subjects, but the diagnosis using serum creatinine was only possible 1–3 days after surgery. In contrast, NGAL measurements by Western blotting and by enzyme-linked immunosorbent assay (ELISA) revealed a robust ten-fold or greater increase in the urine and plasma within 2–6 h of surgery in patients who subsequently developed AKI. It should be emphasized that pediatric patients generally do not have associated pathologies such as diabetes, hypertension and atherosclerosis that could influence NGAL expression. Nevertheless these results have been confirmed in a prospective study of adult patients undergoing cardiac surgery who developed postoperative ARF, identified as increase in serum creatinine levels of more than 50% of the baseline, after the third postoperative day. Urinary NGAL levels rose and were measured in the first three postoperative hours. However, patients undergoing cardiac surgery that did not develop postoperative ARF have displayed elevated NGAL concentration in the urine in the early postoperative period, although NGAL values have been less elevated than those evaluated in patients who subsequently developed ARF. NGAL was recently identified as one of the earliest and most robustly induced genes and proteins in the kidney after ischaemic or nephrotoxic injury in animal models, and NGAL protein was easily detected in the blood and urine soon after AKI.

In summary, the importance of NGAL as biomarker in AKI has been increasing. It seems to be a highly sensitive predictor of ARF with a good potential for early diagnosis. NGAL serum and urinary concentrations can be evaluated bedside in few minutes. However, the role of NGAL should be further investigated in view of the fact that NGAL measurements can be influenced by several factors such as pre-existing renal disease and systemic or urinary tract infections. Nevertheless, NGAL has a significant role in early detection of AKI and as predictive biomarker of ARF.

Treatment of peri-operative acute

renal failure: Early treatment of ARF is crucial to reduce severity, prevent other organ secondary dysfunction, and reverse pathophysiological mechanisms. Early management of ARF should aim at maintaining adequate volaemia and systemic flow in order to restore kidney perfusion pressure. Therefore, a proper haemodynamic diagnostic and monitoring approach is required to investigate the adequateness of circulating volume and cardiac output, and to decide on drug administration.
Weak data are available to support the use of any drug with renal protective effect. Diuretics are useful to control volume conditions in patients with reduced urine output. Loop diuretics are more commonly used for their rapid onset. When a patient suffering from ARF experiences a marked reduction in urine output (oliguria or anuria), fluid overload, negative metabolic changes such as increased creatinine and uraemia, or acidaemia and hyperkalemia, renal replacement therapy (RRT) is needed. In severe sepsis and septic shock high flow RRT is also indicated to treat hyperthermia and to remove inflammatory mediators and endotoxins. Continuous RRT is usually preferred in ICU patients due to less aggressive haemodynamic impact and prolonged depurating effect.
Conclusions: Peri-operative acute renal failure is a challenging syndrome to diagnose and treat. Proper knowledge of predisposing factors and pathophysiology is of great help in understanding the mechanism, supporting early diagnosis and guiding management.

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Acquiring Difficult Airway Management Skills Beyond Residency

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Acquiring Difficult Airway Management Skills Beyond Residency

- Determine what new airway techniques should be mastered.
- Determine appropriate methods of learning alternative airway management techniques.
- Formulate a plan to recruit support for learning alternative airway techniques.
- Create a personal algorithm for difficult airway management based on the difficult airway algorithm

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Management of Coarctation of the Aorta

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Coarctation of the aorta is typically a discrete narrowing of the thoracic aorta just distal to the left subclavian artery. The care of a patient with coarctation depends upon the severity of the coarctation, patient age, and clinical presentation. The treatment plan for patients with coarctation of the aorta depends upon patient age, presentation, and morphology. Infants in heart failure need immediate and aggressive medical treatment for stabilization prior to surgery. Medical therapy consists of continuous intravenous infusion of prostaglandin E1 to keep the ductus arteriosus open, dopamine and/or dobutamine, in addition to correction of metabolic acidosis, hypoglycemia, and anemia. The standard approach is to proceed with surgical repair after the patient has been stabilized. Since the introduction of prostaglandin E1, it is rare for a neonate to require emergency surgical repair because of inability to achieve stability and balloon angioplasty is rarely performed as a palliative emergency procedure. Indications for intervention include hypertension, heart failure, a peak instantaneous pressure gradient across the coarctation of more than 20 mmHg by Doppler or catheterization, and/or collateral circulation on magnetic resonance imaging (MRI). The resting gradient alone may be an unreliable indicator of severity when there is significant collateral circulation. Correction of coarctation should be performed in early childhood to prevent the development of systemic hypertension. If coarctation escapes early detection, repair should be performed at the time of subsequent diagnosis. Various catheter interventional techniques will be discussed in details, including balloon angioplasty and stent implantation. Any catheter laboratory involved in treating coarctation should be equipped with covered stent to manage complications.

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Frequency and Pattern of Herbal Medicine Use among Jordanians with Coronary Artery Disease

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Objectives: To determine the frequency and pattern of cardiac herbal medicine use in patients who had established coronary artery disease. A secondary aim was to explore the relation of herbal use to several independent variables.
Methods: This cross-sectional study was conducted by face to face interview of 690 consecutive patients, who visited all Tuesday out-patient cardiology clinics at Queen Alia Heart Institute during the period from 1/6/2008 to 1/6/2009. Data were collected using a specially designed questionnaire Univariate and multivariate analysis was carried out to explore the relation of herbal use to several independent variables.
Results: It is found that ninety seven out of six hundred and ninety (471 males, 291 females) interviewed patients used herbal products specifically for their heart, leading to an overall frequency of 14.1% . The most commonly used herbs were: Crataegus laevigata in (47 pts, 48.4 %), Zingiber officinalis in (12 pts ,12.4 %) , while all other herbs (21 in number) accounted for the remaining 40% of used herbal remedies. Multivariate logistic regression analysis predicted herbal use only in male gender, history of smoking, urban residence, lower educational level and past history of multivessel percutaneous intervention.
Conclusion: The use of medicinal herbs among cardiac patients in Jordan is not uncommon. Active role of Pharmacists and doctors for counseling patients on the appropriate use of herbal products would yield important improvements in the quality of care.

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Diagnostic Value of Coronary C T Angiography: a review of 82 cases

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Objectives: The aim of this study was to evaluate the diagnostic accuracy of coronary computed tomographic angiography, as compared to coronary angiography as the standard of reference.
Methods: this retrospective study was performed at Queen Alia Heart Institute during the period from May 2009 to July 2009. The results of eighty two patients underwent coronary computed tomographic angiography were compared with the results of coronary angiography. The patients were referred from cardiovascular clinics as outpatient clients or patients that were admitted in different wards of King Hussein Medical Center. After gathering the information, sensitivity and specificity of coronary computed tomographic angiography were calculated in each of the coronary vessels and also in whole vessels. These data were compared to the statistics of published medical articles.
Results: The overall sensitivity and specificity of coronary computed tomographic angiography are 80% and 88% respectively. The sensitivity and specificity in the case of Left Anterior Descending are 72% and 83% respectively, in case of Circumflex are 82% and 90%, and in the case of Right Coronary Artery are 85% and 93% respectively.
Conclusion: Our findings demonstrate that the sensitivity and specificity of coronary CT angiography at King Hussein Medical Center corresponds to the lower limits of international statistics.

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Percutaneous Pulmonary Valve Implantation Using the Edwards Sapien™ THV

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Significant pulmonary valve regurgitation results in progressive right ventricle dilation that may lead to the risk of development of ventricular arrhythmias, right ventricle dysfunction and sudden death. The occurrence of pulmonary regurgitation and or obstruction is not uncommon after surgery for congenital heart defects, including tetralogy of Fallot, pulmonary atresia and any other surgical procedure requiring reconstruction of the right ventricle outflow tract. Even if a valved conduit or a bioprosthetic valve has been used for this purpose, progressive pulmonary regurgitation and or stenosis of such conduits or valves (homografts, Contegra, porcine valves) can occur. Surgical pulmonary valve implantation at an appropriate age may restore right ventricular function and improve the symptoms, however cardiopulmonary bypass and ventriculotomy needed for such operations may further impair the right ventricular function. Therefore timing and indications for resurrection of a competent pulmonary valve are still controversial issues. Bonhoeffer was the first one to implant a percutaneous valve in the pulmonic position using a bovine jugular vein with a valve mounted inside a stent. Since then, Cribier and his colleagues reported on the first human application of another percutaneous heart valve (PHV) in the aortic position. This valve was designed initially for application only in the aortic position and the early clinical experience with this PHV in the aortic position is ongoing. We have tested the same valve in the right side of the cardiac circulation. The testing involved acute and chronic animal studies that demonstrated the valve can perform well in the pulmonic position. In December 2005, we implanted this valve in a 16 yr old patient who had a failed conduit between the right ventricle and pulmonary artery. Since then, a clinical trial sponsored by the United States FDA has been approved to test the safety and efficacy of this valve. To date, 22 patients have undergone an attempt of percutaneous valve implantation in the pulmonic position. Their ages ranged from 11-71 yrs and weight >35 kg in all. I'll discuss the results of the US clinical trial that is undergoing at the time.

Hall C Session 1
ENT

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Cochlear Implants Today and the Future

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Deafness has been present since antiquity. While hearing aids have helped partial deafness an assault on the problem of total deafness began about 30 years ago using cochlear implants. Technological breakthroughs have made rapid advancements on this devastating problem. Our failures have been stepping stones for new innovations resulting in such success that most children using implants are mainstreamed in public education. Adults are now holding down work place jobs that were impossible a few years ago. The formula for cochlear implants today could be written as the mathematical formula, Innovations-pitfalls+new innovations=success. This presentation presents success stories and also the pitfalls along the way.
Thirty years ago cochlear implants would be the future. Fantastic strides have been made resulting in what the cochlear implant is today. Tremendous hurtles have to be overcome to make this entity successful in any culture. This presentation gives ideas concerning what may take place in the future, some ideas about new techniques and how we might improve.

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Stapedectomy…Pitfalls and Complications

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Stapedectomy surgery is potentially one of the most successful procedures performed in the field of otorhinolaryngology. Many of the common anatomical variations, congenital anomalies, and pathological

conditions are not known until seen during surgery.
The surgeon must be well trained, and experienced to recognize, and deal with those conditions.
The pitfalls and complications include: Tears in the tympanomeatal flap, Chorda tympani nerve, High jugular bulb, Disarticulation of the incus, Fracture of the long process of the incus, Facial nerve anomalies, Malleus fixation, Obliterative otosclerosis, Floating or depressed footplate, Perilymph gusher, Persistent stapedial artery, Round window otosclerosis, and Sensorineural hearing loss. Each one is discussed
Correct diagnosis and good technique help to avoid complications.
Surgeons who aren't equipped with enough knowledge to handle difficult problems probably should not be doing the procedure. They should send patients in need of stapes surgery to the most experienced surgeons.
If the surgeon is having 90% closure of the air-bone gap within 10 db and no more than 1% further sensorineural hearing loss, there is no need to change the technique.
It is not the instruments, or technique that ensure success, but rather the minds and the hands in control of the instruments.

52
Cochlear Implants for the Developing World

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Technology has made cochlear implants what it is in the developing world today. This technology is costly. What hope is there for developing countries to be successful with cochlear implants in their populations? How do we get there from here? This presentation gives some thoughts, some prognostication and some hope for cochlear implants in the developing worlds for the future.

Hall C Session 2
ENT

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Laser-Assisted Uvulo-Palatoplasty (LAUP)

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It is an operation designed for the treatment of snoring and OSAS, if the obstruction is at the velopharyngeal level. First described by Yves-Victor Kamami (1990), then other variations and modifications were introduced thereafter by Ellis (1992) and Woolford and Farrington (1994). Because the problems are, airway obstruction, and soft tissue Vibration, The aim is to increase the dimension of the oropharyngeal airway and to reduce the amount of tissue in the soft palate and uvula. After appropriate investigations and diagnostic work up for sleep apnea including Muller's test, the procedure is performed using CO2 Laser under local anesthesia, surface then infiltration.The uvula is shortened, then two longitudinal incisions are created. It can be done in one session , or staged into 3-4 sessions, also it can be combined with laser serial tosillotomy in cases with enlarged tonsils. Pain is the most important sequel, reaching a peak between the 7th and the 10th day postoperatively. Also the operation can be performed using Nd YAG Laser, with contact method, KTP laser, or diode laser.

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Cerebrospinal Fluid Rhinorrhoea: New Classification and Guidelines for Endoscopic Management

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Background: Cerebrospinal fluid (CSF) rhinorrhoea results from a breach in the dura. It may be traumatic, developmental, pathological, or spontaneous. A lot of modalities were suggested to define the site of the leak prior to surgery. Different routes were suggested to approach the defect and many techniques were introduced for repair. Satisfactory results entail precise identification of the defective site, enough exposure of all the margins and proper repair.
Aim of work: To present a new classification of cerebrospinal fluid rhinorrhoea based on the detailed site of the skull base defect and demonstrate how to utilize it in determining the best approach followed for repair.

Patients and Methods: Fifty two cases of CSF leak having 58 skull base defects with or without meningocele or meningoencephalocele were classified according to their sites. The approach followed to repair the defect was designed according to the exact site of the leak. These approaches included the endoscopic transcribriform, transethmoid, axillary flap technique, transnasal transsphenoid, transpterygopalatine and external osteoplastic flap.
Results: The transnasal endoscopic approach was useful to approach all sites except the lateral frontal sinus defects, where the external osteoplastic flap was mandatory. Transcribriform approach was effective in anterior and posterior cribriform plate defects. Transnasal transethmoid approach was useful in anterior and posterior ethmoids leaks. The axillary flap technique was sufficient in medial frontal sinus and frontal recess lesions. Transnasal transsphenoid approach was efficient in central sphenoid sinus defects and transpterygopalatine fossa in lateral recess leaks. These different approaches offered enough exposure of the defect for repair and handling of any associated meningoencephalocele and/or pathology. Primary closure of the defect was achieved in 92.7% of lesions and secondary closure in 100%.
Conclusion: Classification of cerebrospinal fluid rhinorrhoea according to the site of skull base defect helps select the most direct and least invasive approach with effective repair.

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Laser in Inferior Turbinate Enlargement

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Laser Treatment is indicated when the inferior turbinate enlargement is mucosal. In cases of bony enlargement, conventional surgical techniques are used. It is an out patient procedure performed under local anesthesia. Lasers are increasingly being used to shrink or reduce turbinates and reduce bleeding during surgery, like carbon dioxide, Nd:YAG, KTP, diode lasers. A defocused laser beam delivered by wave guide, angled mirror, or operating microscope with micromanipulator is used. We can use either Spot technique for the turbinate head, or the tissue is vaporized along the turbinate surface for one fourth to one half of its length, or cross-hatching longitudinally along the complete length of the turbinate can be performed to leave islands of healthy nasal mucosa. Alternatively optical fiber can be inserted into the turbinate, and laser is applied. The hemostatic properties of the laser reduce the risk of bleeding and the need for packing. However, significant postoperative crusting may result. The precision and superior outcomes give laser surgery an extraordinary advantage over traditional turbinate surgeries.

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The Role of infection in the development of secondary post-tonsillectomy bleeding

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Objectives: To find out if there is a role of infection in the causation of secondary post-tonsillectomy bleeding.
Methods: In this Prospective study, a total No. of 23 patients who were admitted with secondary post-tonsillectomy bleeding in the hospitals of the Royal Medical Services between 2007-2009 were investigated for clinical evidence of infection. The following measures were recorded for each patient at the time of admission: Temperature, white cell count and Neutrophil count.
Results: The total No. of patients were 23, of them 10 were males and 13 females. The age of the patients ranged from 9 to 34 years with a mean of 18.12 years. The mean number of days post-op was 7.1 (range: 3-14). The mean temperature on admission was 36.1 C° (range: 35.9-37.3). Mean White cell count was 8.78 $\times 10^9$/L (range: 5.2-15.8; normal 4.0-11.0 $\times 10^9$/L). Mean neutrophil count was 7.1 $\times 10^9$/L (range: 2.5-10.4; normal 2.0-7.5 $\times 10^9$/L). Only 6 (26.1%) patients were observed to have an elevated White cell count, 3 (50%) of these patients had an elevated neutrophil count. But none of these patients had fever.
Conclusion: Our study raises doubt about the role of infection as a causation of secondary post-tonsillectomy bleeding. However further studies with large no. of patients is required regarding this issue.

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Revision Mastoidectomy: Our Experience in the Royal Medical Services

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Objectives: To evaluate our experience in revision mastoidectomy, surgical findings and causes of failure in mastoid surgery.
Methods: We reviewed the medical records of 58 patients who had undergone revision mastoid surgery in the hospitals of Royal Medical Services during the period of 2004 - 2009. Data regarding gender, age, side of involved ear, number of previous operations, types of previous operations and the intraoperative findings at revision mastoidectomy.
Results: The total No. of patients were 58, of them 30 were males and 28 females. The age of the patients ranged from 12 to 64 years with a mean of 28.42 years (±10.35). Regarding the side of involved ear, 36 were right ears (62%) and 22 left ears (38%). The number of previous operations was one in 48 patients (83%), two operations in 7 patients (12%) and three operations in 3 patients (5%). The types of previous operations were canal wall up in 34 ears (58.6%) and canal wall down in 24 ears (41.4%). Regarding the intraoperative findings at revision mastoidectomy, Cholesteatoma was detected in 35 ears (60.3%), granulation tissue (without cholesteatoma) in 12 ears (20.7%), Retained infected air cells in 7 ears (12%) and mucosal inflammation of the middle ear and mastoid cavity in 4 ears (6.9%).
Conclusion: Revision mastoid surgery has identifiable inadequacies in the primary surgical technique. The judgment and technical ability of a well-trained experienced surgeon are major factors affecting the outcome.

Hall C Session 3
ENT

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Transnasal Endoscopic Surgery of the Frontal Sinus

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Surgery of the frontal sinus constitutes a great dilemma. Recent advances in the field of endoscopy and radiology paved the way for better case selection and results of the transnasal approaches to the frontal recess. The trannasal approaches achieve excellent results in most of the cases but carry the risk of possible orbital and cranial complications.
The aim of this presentation is to address the anatomy, patho-physiology and radiology of the frontal sinus and frontal recess and to demonstrate different approaches to the frontal recess and extent of surgery. These are mandatory for safe and effective transnasal endsocopic frontal sinus surgery.

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Transnasal Endoscopic Surgery of the Orbit & Orbital Apex

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The orbit and the sinonnasal area have intimate relations. Lesions in both areas may extend to the other and surgical intervention of any may harm the other.
Conventional surgery of the orbit is usually external through a trans-facial approach. This carries the possibility of a facial scar and usually needs more operative time and hospital stay.
Advances in the fields of Sino-nasal endoscopy and CT paved the way for taking care of most of infero-madial lesions of the orbit trans-nasally. Dacryocystorhinostomy, drainage of intra-orbital abscesses and cysts, biopsy from tumors, orbital decompression and optic canal decompression are amongst those indications.
Co-work between Rhinologists and Ophthlmologists is mandatory for better care of patients with such lesions. The trans-nasal endoscopic approach is the most direct, but it carries the risk of possible

complications. One should be ready for external approach in case of failure to achieve good exposure and/or complete excision of the orbital lesions.

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Computed Tomography Scan Requirements for Endoscopic Surgery of Paranasal Sinuses, Current Practice

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Objectives: To evaluate the current practice in requesting and performing paranasal sinuses computed tomography scan for patients scheduled for endoscopic sinus surgery and to evaluate the current hospital protocols in performing these scans.
Methods: Three different proformas were designed to collect data from our study groups which included: ENT surgeons, radiologist and radiology technicians. The first proforma was designed for ENT surgeons and aimed at knowing whether they perform endoscopic sinus surgery or not, and to know if they have specific requirements upon requesting sinuses CT scan. The second was designed for radiologist and aimed at knowing their current practice and specifications in performing paranasal sinuses CT scan. The last one was designed for radiology technicians working at three different hospitals to know the current hospitals practice and if it represent a protocol for performing paranasal sinuses CT scan.
Results: Of a total 24 ENT surgeon 20 (83.3%) perform endoscopic sinus surgery and (83.3%) requested specification for the sinuses CT scan. 87.5% usually gave antibiotic treatment before requesting the CT scan, and the most requested specification was coronal plane in 42%. Of the total 24 radiologists who responded to our study 71% prefer the prone position, 71% prefer the coronal plane and 71% preferred the direct coronal rather than the reconstructed images. In all three hospitals axial plane with reconstructed coronal images is the present practice with slice thickness between 2-3 mm and a total no of image scans ranging between 40-50.
Conclusion: We have noticed few differences between ENT surgeons and radiologist and differences between our hospitals practice and other hospitals guidelines found in literature, so we are in a need for a guideline protocol agreed upon by both groups in order to have the best required data with the least efficient dose of radiation.

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Pilomatrixoma- A Case Report of a 12 Year Old Female Child

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Objectives: We present a case of a 12 year old female patient who presented with a 2 month history of right sided neck mass 2-3 cm in diameter. A differential diagnosis of the different causes of neck masses in children was worked out and revealed no diagnosis until an excisional biopsy resulted in the diagonis of a pilomatrixoma.
Methods: A complete medical history and physical examination, diagnostic procedures included complete blood count, tuberculin skin test neck ultrasound and excisional biopsy of the mass.
Results: The lesion was 2-3 cm in diameter. It was composed principally of basaloid and ghost cells with arwas of calcifications, there was a surrounding foreign body giant cell reaction. No malignant cells were identified. There were no complications or recurrence following complete excision.
Conclusion: Pilomatrixoma is a slow-growing, hard mass that arises in the subcutaneous tissue from the hair-cell matrix. It is most common on the face and neck, but is sometimes found on the scalp, eyelids, and arms. Pilomatrixoma is usually a single lump, but, occasionally, multiple masses are seen. Most cases of pilomatrixoma occur in children under the age of 10, and the condition is twice as common in females as males Although not rare, pilomatrixoma is usually misdiagnosed for other neck masses and should always be kept in mind when thinking of the differential diagnosis of a neck mass in children.

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Oral Augmantin vs Rocephin for the Treatment of Acute Otitis Media in Pediatrics.

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Objectives: Acute otitis media (AOM) is a common pediatric problem with a lot of treatment regimens, to achieve a better patient compliance our aim is to compare the efficacy of a single dose of rocephin vs oral augmantin in treating a child with AOM.
Methods: The study was conducted between September 2008 and April 2009 in three military hospitals, we involved a group of 120 children between the ages of 2-9 years whom diagnosed to have AOM, they were divided into 2 groups randomly, the first group was given oral augmantin (50 mg/kg/day) in three divided doses for 10 days. The second group was given a single dose of rocephin (50 mg/kg IM).
Results: Among the first group who received oral augmantin a 49 out of 60 patients showed resolution of the acute stage of OM while in the second group who received rocephin a 47 out of 60 showed cure, the course of effusion post AOM was the same in both groups.
Conclusion: AOM can be treated successfully with either a single dose IM rocephin or a 10 days course of oral augmantin with the same efficacy, but IM rocephin showed better compliance and less GI upset.

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Intra Operative and Post Operative Acquired Neural Response Telemetry Threshold Levels in Cochlear Implant Patients

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Objectives: To compare the acquired electrically neural response telemetry intra versus postoperatively in patients who received a multi-channel Nucleolus advanced contour cochlear implant system.
Methods: In a prospective study 16 patients of both sexes aged between 2 and 32 years, electrically evoked neural response telemetry threshold levels were recorded immediately after cochlear implantation and in post operative setting one month later when switch on of the external speech processor was activated.
Results: Significant differences were found between intra and post operative neural response telemetry threshold levels, the post operative threshold levels were better than the intraoperative.
Conclusion: It is recommended to use the post operative neural response telemetry threshold levels for programming the external speech processor especially for young children

Hall C Session 4
Anesthesia

64
Extubation of the Difficult Airway

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Extubation of the Difficult Airway
- Define a difficult extubation.
- Review patient features constituting high-risk extubation.
- Describe the advantages, limitation, and guidelines for the safe use of airway exchange catheters.
- Discuss how to formulate strategies for extubation of the difficult airway.

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Cardioprotection in Clinical Anaesthesia

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Myocardial dysfunction due to perioperative myocardial ischemia after coronary bypass surgery is a well-know phenomenon that may significantly affect postoperative prognosis. Treatment approaches that prevent or lessen myocardial ischemia during and after surgery have been proposed: in fact, not only the adequacy of the surgical revascularization but also the effectiveness of myocardial preservation determines the maintenance of ventricular

function and the postoperative outcome.
Experimental data have indicated that anesthetic agents may exert cardioprotective effects that are independent of coronary blood flow and of their hemodynamic effects. Volatile anesthetics have been shown to directly precondition or indirectly enhance ischemic preconditioning, resulting in cardioprotection against myocardial infarction and post-ischemic dysfunction. This effect is evident from a better cardiac performance and/or a reduced cardiac enzyme release in patients anesthetized with volatile anesthetics. In high risk patients, the choice for anesthetic regimen that preserves myocardial function may help to prevent postoperative cardiac dysfunction; volatile anesthetics may be considered an additional tool in the treatment of cardiac dysfunction in the perioperative period.
The potential protective cardiac effects on perioperative myocardial dysfunction of volatile anesthetics were already known before the introduction of the concept of anesthetic preconditioning. Beneficial effects on myocardial stunning have been described for all commercially available volatile anesthetics.
The mechanisms involved in anesthetic preconditioning have not been completely understood: it appears to be related to an increase in reactive oxygen species (ROS). Their increase is likely mediated by partial inhibition of electron transport chain. It seems that the increase of ROS leads to the activation or to the translocation of protein Kinase C and so to the opening of mitochondrial K_{ATP} channels. Many experimental data demonstrated that volatile anesthetics may also exhibit cardioprotective effects when administrated during reperfusion. Some authors suggest that volatile anesthetics initiates their maximal effect before ischemia. It is difficult to study the protective effects of volatile anesthetics in clinical studies because myocardial ischemia has to be present in a predictable and reproducible manner. Clinical studies show a high variability. None of the preconditioning studies, although suggesting some protective action on either a biochemical or functional variable, unequivocally demonstrate that the use volatile anesthetics result in a clinical benefit for the patients.
In our experience administration of sevoflurane previous to predictable myocardial ischemia can prevent myocardial function to worsen during ischemia. We studied this phenomenon in patients undergoing off pump coronary surgery without coronary shunting during surgical arterial anastomosis. The administration of halogenated for 15 min. before coronary occlusion lead to preserved myocardial velocities measured by Tissue Doppler Echo during ischemia in comparison with not preconditioned patients. Also the treated patients showed a reduction in postoperative troponin I release.
What about outcome? Some authors examined whether the choice of anesthetic regimen would really have an impact on myocardial outcome. Previous studies have indicated that the choice of the anesthetic did not influence outcome. De Hert compared the effect of sevoflurane and propofol on myocardial function during and after coronary artery surgery: patients who received sevoflurane had a preserved cardiac performance, evident from a preserved stroke volume, dP/dtmax, and length-dependent regulation of myocardial function; need for inotropic support was significantly less, postoperative troponin I was consistently less than after propofol anesthesia. In a sequent study by the same author, in a group of elderly high-risk patients with documented impaired myocardial function, sevoflurane and desflurane preserved myocardial function after CPB with less evidence for myocardial damage, lower postoperative troponin I levels, less need for inotropic support and better postoperative myocardial function compared with IV anesthesia, even if aging is associated with the loss of ischemic preconditionin. Another study demonstrated that the addition of sevoflurane to IV anesthesia for cardiac surgery consistently decreased troponin T levels, with less need for inotropic support for weaning from CPB and reduced incidence of low cardiac output. The cardioprotective effects of volatile anesthetics were also observed subsequently in off-pump coronary surgery: better cardiac function and less Troponin I levels in the sevoflurane group.
Several questions still remain unanswered about the role of ischemic and anesthetic preconditioning. For example if there is a difference among the available

volatile anesthetics. The clinical data on cardioprotective effects are confined to cardiac surgical patients with an ejection fraction higher than 50%; the fact that sevoflurane is cardioprotective during off-pump surgery seems to suggest that it can work also during non cardiac surgery in patients at risk of myocardial events undergoing non cardiac surgery.
Although the use of volatile anesthetics appears related to a better and earlier recovery of myocardial function, the impact of this phenomenon on postoperative morbidity and mortality and clinical recovery, remains to be established. Garcia C. et al, studied whether preconditioning by sevoflurane would decrease late cardiac events in 72 patients undergoing CABG. They demonstrated a protective role for pharmacological preconditioning by sevoflurane in late cardiac events in CABG patients which improves one-year cardiovascular outcome. The first larger-scale study that identifies the use of volatile anesthetics as one of the factors that may affect ICU and hospital length of stay is the one from De Hert: he hypothesized that, compared with a total intravenous anesthesia, the use of volatile anesthetics (sevoflurane and desflurane) in the fast track anesthesia may result in a better early postoperative recovery, with consequently a shorter ICU and hospital length of stay. Infact, he observed that length of stay in the intensive care unit seemed to be related to the choice of anesthesia: it was observed a decreased incidence of prolonged stay (>48h) in patients anesthetized with IV anesthetics. The variable used for a prolonged length of stay were occurrence of atrial fibrillation, increase in postoperative troponin I levels > 4 ng/ml, and the need for prolonged inotropic support. The number of patients with an increased troponin I level >4ng/ml and the patients receiving prolonged inotropic support were significantly less with the volatile anesthetics. It can be hypothesized that the better preservation of early cardiac function with sevoflurane and desflurane may result in an improved global tissue perfusion and so in a better preservation of postoperative myocardial function leading to a shorter ICU and hospital length of stay.
Further investigations are needed to determine whether the observed experimental and clinical cardioprotective effects of volatile anesthetics could decrease morbidity and mortality so impacting on outcome of high-risk patients undergoing cardiac surgery.

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Anaesthetic Management in Facial Bipartition

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Objectives: Facial bipartition is amongst the most radical craniofacial surgery undertaken and is performed rarely. We present our experience with anaesthetic management during this operation.
Methods: Over the last 10 years, a total of 18 patients with a variety of complex craniofacial anomalies underwent facial bipartition. There were 13 females and 5 males. The median age at surgery was 8 years (range 2-26 yrs). There were 6 patients with synostotic syndromes, 5 patients with median/paramedian tumorlike anomalies, 4 patients with frontonasal dysplasia and 3 patients with hypertelorbitism.
Results: There was one perioperative mortality in an 8 year old redo case the cause of which was massive bleeding. The average duration of surgery was 9 hours (range 7-14 hrs). All patients required intra-operative blood transfusion. Three patients required postoperative ventilation in the ICU for a median duration of 2 days.
Conclusion: Facial Bipartition surgery is complex surgery with intensive special anaesthetic requirements. The learning curve is long due to the small number of cases.

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Poor Handwashing Practices among Health Care Workers in ICU

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Objectives: To assess the compliance of different health care providers in an open & huge ICU regarding hand washing.
Methods: This is an observational study,that was run by the ICU specialists using direct observation of all heath care providers,who enter the Unit and those from within the unit.It was run over a period of 6 months,during the three shifts to cover 24 hours a day.
Results: Nurses were the best to comply (67%) followed by junior medical staff (51%), while the most senior persons were the least with 34%. Washing using alcohol based solution,which was available everywhere throughout the unit was superior to conventional hand washing(77% Vs 23%). Washing before dealing with patients was the least (23%),compared with 44% in between patients & 79% after dealing with patients. During night shift,the compliance was the best with 82% Females were better than males regardless of career & seniority (71% Vs 43%)
Conclusion: Hand washing is still a big problem all over the world,as in our units due to the lack of knowledge of its role in decreasing rate of infections & its consequences. A strong & efficient monitoring system,with punishment-rewarding rules will be efficient when used side-to-side with education & awareness in regard to the problem.

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Intensive Care Unit Acquired Pneumonia after Cardiac Surgery, Etiology, Causes, and prevention

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Objectives: Intensive care unit ventilator acquired pneumonia after cardiac surgery is the most important infection occurring in critically ill patients and so increasing morbidity, mortality, hospital stay and cost. This study is conducted to evaluate ventilator associated pneumonia in our ICU.

Methods: Two thousand seven hundred and eighty two consecutive patients underwent open heart surgery between Decembers 2007and May 2008 were reviewed retrospectively. The patients were evaluated for preoperative comorbidities and operative risk factors predisposing to prolonged ventilator dependence, sources of infection, and ICU dependent days. The sputum and blood cultures, physicians' progress notes, nurses' progress notes and the discharge summary were reviewed.
Results: 2.95 % patients developed ICU ventilator associated pneumonia (VAP) during the study period. The mortality was higher among VAP patients, the hospital stay was longer. Ventilator dependent patients secondary to respiratory failure had a higher risk for VAP accounting to 40% of patients. Cardiac arrest secondary to arrhythmias specially atrial fibrillation was the second most common risk factor associated with VAP (35%)indicating that prolonged ventilator dependency >24 hours is another risk factor for VAP. Analysis revealed that preoperative renal failure, abnormal pulmonary function test, bleeding tendencies and postoperative bleeding were predisposing risk factors to VAP in CABG patients. Good nursing care especially mouth care and nursing patients in semi-sitting position decreased the incidence of VAP. Close monitoring of patients for early signs of sepsis helped identify the disease early and initiating treatment as early as possible.
Conclusion: Identification of preoperative and operative risk factors for VAP must be evaluated to identify the patients at higher risk. Ventilator positioning of patients in recombinant position, good nursing care and especially mouth care with early detection of the pathogen are helpful to prevent VAP to decrease ICU morbidity and mortality. Most VAP associated with respiratory failure, cardiac instability and renal insufficiency, so special attention must be offered to such patients to decrease mortality and hospital cost.

Hall D Session 1
S3 World Federation of Hemophilia Symposium

69
History of Hemophilia

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Hemophilia is a bleeding disorder described long time ago. This disorder was described without any indication of the cause. Many physicians through centuries described families with some sort of bleeding disorder. It is only in the past 250 years that hemophilia was recognized as a hereditary bleeding disorder. Following this, there was a fast development in identifying the real etiology of the disorder and treatment options. Today there are a lot new technologies in the horizon that would make a huge difference in the life of hemophilia patients.

70
Strategy for Development of Hemophilia Care in Countries with Limited Resources

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The development of appropriate care for persons with hemophilia and other bleeding disorders can be a time consuming, difficult and expensive task. Nonetheless, with good cooperation between all levels of care providers, good organization and support from health authorities substantial improvements can be made within a reasonable period of time.
In any country, the task must begin with the setting of goals which are realistic and based on the present level of care in the country. The engagement of key leaders in the lay society, medical community and government are critical to the success of any program.
The World Federation of Hemophilia (WFH) has established four key areas to be addressed. These include clinical care, laboratory facilities, product availability including blood transfusion services and a strong patient organization.
A multidisciplinary medical team should be established to take leadership in clinical care. Training of individuals and educational programs are necessary. Adequate accredited laboratory facilities for appropriate diagnoses are essential. A strong and well led lay organization is important not only in education of persons with hemophilia and their families but in identifying patients. Where possible a patient registry should be provided. There is a need for safe products either purchased or through a safe and well organized blood transfusion services. This will require close cooperation with government authorities responsible for healthcare. Where possible, support of the WFH which can provide help through several established projects, should be sought. The improvement of care in the Kingdom of Jordan over the past five years can be seen as a model for other jurisdictions in the area and will be used in identifying examples of progress.

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Von Willbrand Factor (VWD)

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Von Willebrand disease (VWD) is the most common hereditary bleeding disorder affecting both males and females, with an estimated prevalence of 1.3% in the general population. Clinical manifestations of the disease primarily consist of excessive and prolonged mucocutaneous and postoperative bleeding that result from quantitative or qualitative defects in the adhesive glycoprotein von Willebrand factor (VWF). Because mucocutaneous bleeding is a primary clinical manifestation of VWD, females with this disorder are frequently affected by reproductive tract bleeding and related complications. The severity of the bleeding tendency is usually proportional to the degree of the primary deficiency of VWF and to that of the secondary deficiency of factor VIII (FVIII), because VWF is the carrier of FVIII in circulating plasma.
Inherited VWD has been classified into different types. Type 1 and 3 VWD are caused by the partial or virtually complete deficiency of VWF, while type 2 VWD is due to qualitative defects of VWF. The current classification of congenital VWD is based on a few laboratory tests, including FVIII activity, VWF antigen (VWF:Ag), VWF ristocetin cofactor activity (VWF:Rco), ristocetin-induced platelet aggregation (RIPA) and VWF multimers in low resolution gel.

The mainstay of VWD treatment is replacement of VWF at the time of spontaneous bleeding or before invasive procedures are performed. The aim of therapy is to correct the dual defect of haemostasis, i.e. the abnormal platelet adhesion-aggregation and the abnormal intrinsic coagulation due to low FVIII levels. The mainstays of treatment are autologous replacement therapy with desmopressin (DDAVP) and allogeneic replacement therapy with VWF/FVIII or VWF concentrates devoid of FVIII. There are also adjunctive treatments that act upon VWF-mediated haemostasis, i.e., platelet transfusion and combined oestrogenprogestogen drugs. Adjuvant therapies are antifibrinolytic amino acids, such as tranexamic acid and epsilon aminocaproic acid, which improve haemostasis without affecting plasma VWF levels.

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Complications of Hemophilia

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Hemophilia is a hereditary disorder that can lead to complications that have a major lifelong impact. Aside from bleeding, which can be life threatening, the two most significant complications of hemophilia are the development of inhibitors and development of joint disease.
Serious joint disease is to a major extent preventable with rapid aggressive treatment, adequate physiotherapy, and where possible prophylaxis. In target joints, the use of synovectomy and in extensively damaged joint replacement can be made available with appropriate support and training. The role of early and aggressive treatment, prophylaxis and physiotherapy will be discussed.
Inhibitor development is the most serious complications of hemophilia. There is increasing information on the role of timing and amount of product replacement, product variability and genetics in the development of inhibitors. Management of inhibitors may be complicated and expensive. The role of bypassing agents in the management of inhibitors will be addressed as will the role of immune tolerance.

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Rare Bleeding Disorders

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Rare bleeding disorders (RBDs) are heritable abnormalities of haemostasis that may present significant difficulties in diagnosis and management. RBDs are relatively rare in Europe (1:0.5-2 millions), but their frequency is increasing in countries with a high rate of immigration from the Middle East and North Africa. Looking at the information available in the literature, it appears that there are considerable variations in bleeding patterns among patients with RBDs. A symptom common to all RBDs is the occurrence of excessive bleeding at the time of surgical procedures, delivery in women and circumcision in men. Mucosal tract bleedings were the most frequently reported type of symptom. Patients affected with severe deficiencies (coagulant activity less than 5% for all type of deficiency and less than 5 mg/dl for fibrinogen deficiency) can present important bleeding episodes such as CNS, gastrointestinal and umbilical cord bleedings, haemarthrosis and haematoma. Spontaneous life-threatening manifestations such as CNS bleeding were relatively more frequent in patients with severe FXIII, fibrinogen, FVII and FX deficiency. Umbilical cord bleeding was prevalent in afibrinogenemia and severe FXIII and FX deficiencies. GI bleeding occurs mainly in FX deficiency, but less frequently also in all other type of RBDs. Limb-endangering haemarthroses were mostly present in afibrinogenemia, severe FII, FX, FXI and FXIII deficiency, whereas soft tissue haematomas occurred mainly in afibrinogenemia, FII and severe FX deficiencies. The large clinical heterogeneity observed in patients with RBDs makes very difficult the establishment of a clear clinical phenotype and genotype correlation, particularly for FVII and FXI deficiency. In literature patients with homozygous nonsense mutations are listed for all type of coagulation factor deficiencies except FII. This evidence seems to be in contrast with the result obtained with experimental mouse models where only the lack of fibrinogen, FXI and FXIII seems to be

compatible with survival. These genotype states of patients confirms that patients with no FV, FVII and FX coagulant activity caused by homozygous nonsense mutations could survive, even though they need constant replacement therapy. At variance, the absence of patients affected by FII deficiency with a homozygous nonsense mutation confirms the result obtained in the mouse model and put in evidence the incompatibility of undetectable FII activity and human survival. The correlation between laboratory phenotype and genotype is still a challenge. Treatment of RBDs is a difficult task, since information on the clinical management of RBDs is often scarce and replacement therapy of coagulation factors may require the prescription of unlicensed products which are not readily available. The general principle of treatment is based on the replacement of the deficient factor. Dosages and frequency of the treatment depend on minimal haemostatic levels of the deficient factor, plasma half-life and type of bleeding episode. Important parameters affecting the treatment choice are bleeding history of the patient and their family, as well as the safety of the replacement material. Fresh frozen plasma (FFP) and cryoprecipitate are the back bone of RBDs treatment, available worldwide because they are relatively inexpensive and widely available. Only few specific plasma-derived concentrates are available and differently licensed for fibrinogen, FVII, FXI and FXIII deficiencies. Prothrombin and FX deficiencies are often treated with prothrombin complex concentrates (PCCs), containing often uncontrolled amounts of FII, FVII and FX. A new Factor X P Behring containing a known amount of FX but also of FIX, was recently developed and seems to be useful for the prophylaxis of patients affected by FX deficiency. A novel plasma derived FX concentrate (BPL) was recently developed which is on clinical trial. FV and combined FV/VIII deficiencies can only be treated with fresh frozen plasma (FFP), preferably virus-inactivated. The recombinant FVII concentrate is available for FVII deficiency (rFVIIa) and a recombinant product for FXIII deficiency (rFXIII-A) is currently on phase I clinical trial. Severe FXIII deficient patients require and benefit regular prophylaxis and few patients with afibrinogenemia, FX and FVII deficiency benefit also a regular prophylaxis however the dosage and frequency of this type of treatment have not been well established yet.

Hall D Session 2
Pediatrics Oncology

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Acute Lymphoblastic Leukaemia

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This is the most common type of childhood cancer which can affect any age but is most common in the age group 2 – 6 years. It is slightly more common in males except during infancy where there is a female preponderance. There have been major advances in the results of treatment of childhood ALL and around 85% of children with ALL are now cured. Recent advances in molecular techniques for assessing minimal residual disease in the bone marrow post remission made it possible to refine treatment based on MRD.

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Malignant Melanoma: Expereince at the Royal Medical Services

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Objectives: To increase the awareness of physicians about malignant melanoma, and the importance of early recognition and diagnosis which leads to improve the prognosis and decrease the morbidity and mortality of the disease.
Methods: Retrospective analysis of twelve cases of malignant melanoma seen in dermatology clinics of the Royal Medical service. Diagnoses were made by clinical and histological examination of cases in the period from January 2006 to December 2009. Sex, Age, Site, and Duration of the disease were analyzed
Results: Five patients were females and seven were males. Average age at diagnosis 66 years. Six cases were nodular malignant melanoma five cases were Acral lentigenous melanoma and one superficial

spreading malignant melanoma the mean disease duration was 14 months at the time of presentation.
Conclusion: There was underestimation of cutaneous malignancy in general and malignant melanoma mainly. Delay in diagnosis and early recognition will lead to increase morbidity and mortality. Physician should be aware of the existence of melanoma as a very serious disease and proper management and intervention will improve the outcome.

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Mycobacterial Infection in the Immunocompromised

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Disseminated non tuberculous mycobacterial infection or BCG is usually associated with defects in cellular cell immunity. In adults this is usually in the context of HIV. In children T cell primary immune deficiencies, some neutrophil disorders such as CGD as well as secondary immunodeficiency due to chemotherapy, malignancy and specific drug therapies like anti TNF treatment predispose to mycobacterial disease. Genetic defects along the interleukin (IL)-12/interferon (IFN)–γ pathway have been found in patients with mendelian susceptibility to mycobacterial disease (MSMD), where patients are specifically susceptible to mycobacterial and salmonella infection. Different mutations in five genes along the interleukin (IL)-12/ interferon (IFN)-γ/ signal transducer and activator of transcription (STAT)-1 pathway have been identified.
Presentations include babies with SCID or CGD with disseminated BCG, M.avium sepsis in HIV, rapidly growing mycobacteria in CVL infection, MTB disease (both pulmonary and non pulmonary) in children with JIA or inflammatory bowel disease treated with infliximab and NTM infection of bones, lungs, liver and spleen, in leukaemia or MSMD. Treatment is prolonged and utilises multiple drug regimes depending on mycobacterial sensitivities. Interferon gamma may be useful in specific IFNg deficiency as may correction of underlying immune defect where possible or withdrawal of immune suppression.

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The Spectrum of Familial Mediterranean Fever Gene Mutation among Children in North of Jordan

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Objectives: To define the spectrum of gene mutations among children with Familial Mediterranean fever in North of Jordan.
Methods: Through the year 2008, 24 new cases of Familial Mediterranean fever were seen at the pediatric department of Prince Rashed Ben Al-Hassan Military Hospital in North of Jordan. The age range of these patients was 5 to 15 years (14 males and 10 females). The patients were selected if he or she exhibits the periodic short episodes of fever and abdominal pain lasting from 12 to 72 hours and aborting abruptly. Subsequently Familial Mediterranean fever StripAssay for the identification of MEFV gene mutations based on polymerase chain reaction and reverse-hybridization performed at a more sophisticated Lab in Princess Eman Research and Laboratory Sciences Center on the selected patients to find the spectrum of 12 mutations in the MEFV gene: E148Q, P369S, F479L, M680I (G/C), M680I (G/A), I692del, M694V, M694I, K695R, V744S and R761H.
Results: Genotype studies were done for 24 patients, the most common mutations identified were M694V (50.0%), V726 A (16.7%), M694 I (13.3%), E148 Q (10.0%), M680 I (G/C) (6.7%) and A744 S 3.3%). The heterozygous was 37.5% and homozygous was 62.5%,. On other hand, Single gene mutation found in 19 cases (79.2%) and compound heterozygous gene mutation in five cases (20.8%), respectively.
Conclusion: The most prevalent gene mutation is M694 V, and it could be responsible for the most cases of Familial Mediterranean fever in North of Jordan.

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Acute Myeloid Leukaemia

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Acute myeloid leukaemia is the second most common form of acute leukaemia in children. AML can primary (de novo) or secondary arising from a pre-existing marrow disorder or following previous treatment with chemotherapy and radiotherapy. The results of treatment of childhood AML have improved recently, mainly due to advances in supportive care and increasing intensity of chemotherapy. Bone marrow cytogenetics and response to induction chemotherapy are important prognostic factors and can be used to stratify patients into different risk groups. FLT3 gene mutations is another factor associated with increased relapse rate and adverse prognosis. The anti-leukaemic effect of Mylotarg (anti-CD33) needs to be studied further. The use of FLT3-IDT inhibitor may improve outcome of with patients with FLT-3 IDT positive AML.

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Detection of Urinary Tract Congenital Anomalies in Children with Urinary Tract Infection using Tc99m-DMSA Renal Scan

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Objectives: to assess various types of congenital renal anomalies that can be detected during routine DMSA scan, in children with UTI.
Methods: This retrospective study included 400 subjects (138 boy and 262 girls), age range (one month to 15 years). All children had urinary tract infection, and were referred for nuclear medicine center for DMSA scan to assess for possible renal scarring. All patients had DMSA scan conducted two hours after intravenous injection of Tc99m- DMSA radiopharmaceutical, with calculated dose according to body weight. All scans were reviewed by two nuclear medicine physicians. Congenital anomalies appearance, scarring and function of kidneys were documented. T test has been used in statistical analysis and P<0.05 was considered significant.
Results: There were 55 cases of congenital kidney anomalies in our study (13.75%), within 29 boys and 26 girls. The most common congenital anomaly was single kidney with 17 cases (30.2%), 11 cases with pelvic kidney (20.1 %), 7 cases with multicystic kidney (12.8%) , 7 cases of crossed fused ectopia (12.8%), low lying kidneys 9.2 % (5 cases), horse-shoe kidney 7.4% (4cases), crossed non-fused ectopia 3.7% (2 cases), 1 case of cylindrical kidney (1.9%) and one case of polycystic kidneys (1.9%) Renal scarring was detected in 31.25% of total cases (125 cases), and 30.1% of congenital anomalies (17 cases).
Conclusion: Congenital renal anomalies are frequently encountered and diagnosed during DMSA scan. This scan can be helpful assessment and follow-up of kidney functions as well as assessment of renal scarring. Patients with congenital anomalies did not show any increase in renal scarring compared to normal kidneys.

Hall D Session 3
Pediatrics

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Investigation of Pyrexia of Unknown Origin

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Fever or pyrexia of unknown origin (FUO) was defined in 1961 by Petersdorf and Beeson as the following: a temperature greater than 38.3°C (101°F) on several occasions, more than 3 weeks' duration of illness, as well as failure to reach a diagnosis despite one week of inpatient investigation. FUO is often a diagnostic challenge in paediatrics, despite recent advances in terms of diagnostic tests as it can be the obvious presentation of many diseases, though the main causes in children are infections. Chronic infections, eg tuberculosis, vasculitides such as Kawasaki disease, collagen-vascular diseases and malignancy are usually considered first, but the paediatrician must also consider drugs including empiric antibiotics and factitious fever. To achieve a diagnosis it is essential that a comprehensive history including

illness of family members, recent visit to the tropics, medication is taken and repeated physical examination is performed. Signs may change over time.
New developments in nuclear medicine techniques, development of molecular markers for JIA and genetic testing for diagnosing rare hereditary autoinflammatory and periodic fever conditions have led to great progress being made in the diagnosis of infectious and other causes of fever. However there are a myriad of conditions that may cause prolonged fever and the diagnostic pathway may require prolonged periods of hospitalization, investigation and empiric treatment. There are differences in the spectrum of diseases causing PUO between countries depending on endemic infections such as malaria, typhoid, TB or Brucella and knowledge of local epidemiology is essential.

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Organic Acid Disorders Detected by Urine Organic Acid Analysis: in Princess Iman Center for Research and Laboratory Sciences over 40 Months Experience

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Objectives: To describe our experience in detecting organic acid disorders in highly suspicious patients with metabolic acidemia following the establishment of GC-MS system in princess Iman center – at King Hussein medical center in 2007 This method for organic acid analysis was established in developed countries since 1980s
Methods: During 2007–2009, we had analyzed 455 urine samples from 430 patients who were highly suspected of having organic acid disorders, 26 positive cases were identified. We used solvent extraction method with ethylacetate, BSTFA for derivatization and pentadecanoic acid as internal standard All samples were run on agilent 6890N GC and agilent 5973 mass selective detector.
Results: 26 organic aciduria (6.04%), were diagnosed among 430 patients investigated We identified the following disorders: Tyrosinemia :11, isovaleric acidemia (IVA): 1, propionic acidemia (PA):1, methylmalonic acidemia (MMA):2, Oxothiolase deficiency: 4, Fatty acid oxidation defect:2, 3-hydroxy-3-methylglutaric aciduria:1 3-methylglutaconic aciduria:1, Orotic aciduria (most likely urea cycle disorders):1, Cnavan disease:1, lactic aciduri:1
Conclusion: Organic acid disorders had never been diagnosed in Jordan Royal medical services before, until GC/MS technology was introduced to PIC in 2007. Urine analysis also provided a diagnostic clue to other inborn errors of metabolism including amino acid disorders, urea cycle disorders, disorders of carbohydrate metabolism, and mitochondrial fatty acid oxidation disorders. Detection of Organic aciduria in Jordan is important despite the implied extra costs, since it allows rapid therapy in many cases with a significant reduction of morbidity and mortality and makes the physicians more aware of these pathologies which is a crucial part of Royal medical service policies and mission

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Spectrum of Inborn Errors of Metabolism in Jordan; A Five Years Experience at King Hussein Medical Center

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Objectives: to describe the different types and frequencies of inborn errors of metabolism in the pediatric metabolic genetics clinic at King Hussein Medical Centre, Amman, Jordan
Methods: a retrospective review of the case files of patients attending the metabolic genetics clinic who were diagnosed to have an inborn error of metabolism over the last 5 years was carried out, there was no age limit. The following data were recorded; age, sex, diagnosis, method of diagnosis,

consanguinity of parents, and the presence of affected family members or relatives.
Results: 187 patients were included in the study, 95 were males and 92 were females with a male to female ratio of 1:1. 56 (29.5 %) patients had aminoacidopathies of whom 22 (11.8%) had tyrosinemia, 16 (8.6%) had phenylketonuria, 14 (7.5%)had maple syrup urine disease and three had homocysteinuria. 49 (26.2%) patients had organic acidemias of whom 12 had propionic acidemia. 22 (9.6%) had lysosomal storage diseases 12 had mucopolysaccharidosis, 8 had Gaucher and Niemanpick disease and two had Taysachs disease. 20 (10.7%) patients had glycogen storage disease.14 had dyslipidemias 7 had perioxisomal disorders. 4 (2.1%) had galactosemia. And 16 (8.5%) had other diagnoses.
Conclusion: patients with inborn errors of metabolism are becoming increasingly diagnosed. Tyrosinemia is the most common of the aminoacidopathies, whereas propionic acidemia is the commonest of the organic acidemias. Due to the difficulty in diagnosing theses diseases newborn screening is highly recommended for early intervention and counseling.

83
Children with Iron Deficiency Anemia are at High Risk to Get Febrile Seizure

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Objectives: To find the association between iron deficiency and febrile seizures among children presenting at the royal medical services hospitals aged 6 months to 5 years.
Methods: A retrospective case control study with 215 patients who presented with febrile seizures and 215 otherwise healthy controls matched for age who presented with a febrile illness with no seizures were reviewed to determine iron status, iron deficiency anemia was defined as the presence of hemoglobin level <11 g/l, mean corpuscular volume <70 fl, mean corpuscular hemoglobin <24 pg, and red cell distribution width >15%. Workup for seizures and iron deficiency anemia was done and data was analyzed.
Results: a total of 72 patients (33%) of cases had iron deficiency anemia, compared to 37 (17%) of controls, with p= 0.04.
Conclusion: IDA was significantly more frequent among the cases as compared to the controls. And children with febrile seizures were almost twice as likely to be iron deficient as those with febrile illness alone. The results suggest that screening for IDA should be considered in children presenting with febrile seizure and treating IDA might prevent more febrile seizures.

84
Congenital CMV; Assessment & Treatment

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Congenital CMV (cCMV) affects up to 1% of all live births and can cause significant disease at birth including multi-system organ failure and death, growth retardation, neurodevelopmental problems, and sensorineural hearing loss (SNHL). SNHL is the most common outcome of infection with ~20% all childhood SNHL being attributable to cCMV. cCMV can only be diagnosed when CMV is detected in urine, saliva or blood obtained within 21 days of life and is presently only tested for in symptomatic infants. Of the 10% of children who are symptomatic at birth, 22-65% have SNHL. In the remaining 90%, who are apparently asymptomatic at birth, sequelae still occur, with SNHL affecting 6-23%. CMV-related hearing loss may be profound and early intervention is crucial in minimising the impact of SNHL on language development. Full assessment of all babies with babies with CMV detected in the first 3 weeks of life should therefore be undertaken. Both cCMV and SNHL in young children can have a profound and lifelong impact on functioning, quality of life and a significant cost to the individual, and society. Recent studies have shown that an antiviral medication, ganciclovir, reduces the hearing impairment and improves neurodevelopmental outcomes

in infants with cCMV when treated in the first 4 weeks of life. Valganciclovir, (the oral version of ganciclovir) is now available, and a current randomised controlled trial is comparing two durations of treatment.

85
The Pattern of Feeding in Infants in South of Jordan

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Objectives: To analyze the pattern of feeding and to identify various factors that could influence the type of feeding among infants in south of Jordan
Methods: Prospective interviews with mothers of infants up to the age of one year seen consecutively during outpatient clinic visits were conducted in December 2005 and January 2006 using structured 12 item questionnaires.
Results: 128 interviews were conducted, 60 infants (46.9 %) were exclusively breastfed, the rate was 51% for infants in the first 6 months of life, but dropped to 35% during the next 6 months. 68 (53.1%) of infants used formula, of these 90% belong to nonworking housewives, 81% belong to low income families <300 Jordan dinars and 16% of mothers use unsuitable formula. 50% of working mothers used formula whereas the figure was 53.5% for housewives. The reasons given for switching to formula feeding in order of frequency include: inadequate milk supply 38 (55.8 %), no particular reason 15 (22%), working mothers 5 (7.3%), pregnancy 5 (7.3%). The exclusive breastfeeding, mixed feeding and exclusive formula feeding rates were 46.9%, 32.8% and 20.3% respectively.
Conclusion: The most common reason for using formula was the misconception of mothers regarding breast milk insufficiency. Many mothers used unsuitable formula for no apparent reason. These findings suggest a need for educational campaigns aimed at explaining the benefits of breastfeeding and outlining the possible disadvantages of unnecessary use of formula.

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How Sensitive is Ordinary Ultrasonography in Detecting Vesicoureteral Reflux in Children With Urinary Tract Infection?

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Objectives: To determine the sensitivity, specificity, and predictive values of renal ultrasound findings for Vesicoureteral reflux in children with first urinary tract infection.
Methods: A total of 86 children aged between one month and 8 years proved to have their first urinary tract infection were enrolled in this study, 46 were females and 39 children were febrile and admitted as acute pyelonephritis, patients were investigated for Vesicoureteral reflux initially by renal ultrasound within 3 days and follow up voiding cystourethrography was done 4 weeks later, voiding cystourethrography results were compared to the initial ultrasound finding. Ultrasound findings were considered suggestive of Vesicoureteral reflux if there was "dilatation of the pelvi-calyces", "dilatation of the ureters", or "dilatation of the collecting system" of one or both kidneys.
Results: Although ultrasound findings suggestive of Vesicoureteral reflux in febrile patients were twice more common than in febrile patients, there was no significant difference in the prevalence of Vesicoureteral reflux which was 23%; and no significant difference regarding sex. Ultrasound findings were suggestive of Vesicoureteral reflux in 6 of 20 patients with confirmed Vesicoureteral reflux on voiding cystourethrography, and positive in 10 of 66 patients without Vesicoureteral reflux on voiding cystourethrography. The sensitivity and specificity of ultrasound in suggesting Vesicoureteral reflux were 30% and 85%, respectively. The positive predictive value of ultrasound in suggesting Vesicoureteral reflux was 38%; the negative predictive value was 80%.
Conclusion: Ultrasound findings in children of urinary tract infection are neither sensitive nor specific for Vesicoureteral reflux in children with a first urinary tract infection.

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The Use of Oral Sucrose Analgesia to Relieve Minor Procedural Pain in Neonates

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Objectives: To provide non-pharmacological procedural pain relief in neonates and to determine the efficacy and safety of using sucrose as analgesia for minor painful procedures in neonates
Methods: The study was conducted at King Hussein Medical Center/ neonatal unit over 6 month's period (June - December 2009) and included one hundred neonates both preterm and full-term. The infants received sucrose 24% two minutes before the minor procedure with a dose of 0.5ml for infants <1.5 kg,1ml for infants 1.5-2.5 kg and 2ml for infants >2.5 kg. Pain was assessed using physiologic and behavioral scorings.
Results: Sucrose significantly reduced the physiologic and behavioral painful responses in majority of neonates undergoing minor procedures.
Conclusion: Sucrose was safe and effective for reducing procedural pain in neonates during minor procedures.

Hall D Session 4
Pediatrics Pulmonology

88
Treatment of Pre-School Wheeze

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Preschool wheeze is a common and often difficult to treat symptom. It may rarely be the first presentation of a severe underlying condition. A number of approaches to phenotyping have been adopted. Epidemiology, based on the temporal patterns of symptoms, has taught us a lot about the medium and long-term implications of early life events, but is not useful for treatment planning. Atopic status is also not useful. Instead, symptom pattern (episodic (viral) and multiple trigger) should be used to decide on treatment. Reduced lung function at birth is associated with a number of maternal factors, including smoking (both by direct and epigenetic mechanisms), atopic status, and pregnancy complications; these children tend to have transient wheeze. Children whose symptoms persist into mid-childhood are born with normal lung function, but have evidence of airflow obstruction at 4-6 years of age. Early atopic sensitization is important in this group. Treatment of pre-school wheeze should be based on relief of present symptoms; there is no known therapy which prevents progression from episodic to multiple trigger symptoms and asthma. Episodic (viral) wheeze is a neutrophilic disease, and should be treated with intermittent therapy. Options include inhaled anticholinergics or short-acting β-2 agonists, oral montelukast and short-course, high dose inhaled corticosteroids. Prophylactic inhaled corticosteroids are not useful. Neither prophylactic nor inhaled corticosteroids are effective in preventing progression from an episodic viral to a multiple-trigger pattern. Multiple trigger wheeze may merit a three step trial (trial period, stop if apparent response, restart only if symptoms return) of prophylactic inhaled corticosteroids or montelukast. Recent data have shown that prednisolone should not be a routine treatment for acute exacerbations of episodic (viral) wheeze, but should only be used for really severe exacerbations, especially in the setting of multiple trigger wheeze.

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Pseudobartter Syndrome among Cystic Fibrosis Children

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Objectives: To study the clinical features, pattern, course in patients with cystic

Fibrosis who present with Pseudobartter syndrome at King Hussein medical center.
Methods: A retrospective study on 15 children (6(40%) males and 9(60%) females)with confirmed Cystic fibrosis followed up at the Pediatric respiratory clinic at King Hussein Medical Center between January 2002-december 2009.A specially formulated data sheet was used for the files of these patients. All patients with confirmed cystic fibrosis who initially presented with recurrent hyponatremic dehydration or developed dehydration during the course of the disease were included. Treatment protocols used were reviewed.
Results: A total of 15 patients were studied who constituted 15 % of all our 100 cystic fibrosis patients (40% males &60% females). Ten (67%) patients presented in infancy with features of pseudobartter syndrome. Three (20%) patients had one single attack that never recurred. Two cousins (13%) had persistent metabolic alkalosis; one with left hydronephrosis and the other with hypertension. One patient had the 1st attack at age of 2 years. Median age of presentation was 4 months. Most of the attacks occurred in summer. Five (33 %) patients had positive cystic fibrosis gene mutation and 6(40%) children had a positive family history for cystic fibrosis. By one year of age 6 patients had pseudomonas colonization. We lost one infant with severe dehydration during hot weather.
Conclusion: Pseudobartter syndrome among our cohort is relatively common and can be fatal. There is a lack of evidence-based guidelines for routine sodium supplement for these patients in infancy. No significant association with lung involvement severity was found. More studies are needed for affection of the disease course in these patients.

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Hospitalized Children with 2009 H1N1 Influenza at a Jordanian Hospital.

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Objectives: To study the clinical characteristics of children who were hospitalized with suspected or proven 2009 H1N1 influenza at Queen Alia Military Hospital in Amman
Methods: Hospitalized children under the age of 14 years with suspected or proven 2009 H1N1 infection were prospectively studied. All were tested with polymerase-chain-reaction assay and chest radiography on admission
Results: During the study period, 77 were admitted, only one died. 33 (43%) were females. The mean age was 4 years. Twenty one percent were under the age of 12 months. Sixty five percent of the patients had at least one underlying medical condition; these conditions included asthma; diabetes; heart, immunodeficiency and neurological diseases. 30 (39%) had clinically suspected 2009 H1N1 infection but were tested negative. 44 (100%) of the positively tested had chest radiographic findings consistent with pneumonia compared to only 9 (30%) of the negatively tested case. 62 (80%) had anti-viral therapy initiated within 3 days of the onset of their symptoms. Fever was present in all (100%), respiratory symptoms in 84%, gastrointestinal in 25% other had musculoskeletal (7%), hematuria in 7%.
Conclusion: 2009 H1N1 influenza causes a significant illness requiring hospitalization. Fever, respiratory and gastrointestinal symptoms were the most common presenting features. Most patients had one or more underlying medical conditions. All proven cases had radiological evidence of pneumonia. Most children respond adequately to anti-viral therapy

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Acute Respiratory Tract Infections in Jordanian Children

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Objectives: To examine the prevalence of HRSV, and other potential aetiological respiratory tract pathogens including human metapneumovirus (HMPV), human bocavirus (HBoV), human coronaviruses (HCoV)-NL63 and HCoV-HKU1, human rhinoviruses (HRV), human adenoviruses (HAdV), influenza viruses A (FLUA) and B (FLUB), human parainfluenza viruses (HPIV) 1-4, Mycoplasma pneumoniae, and Chlamydia spp., in a hospital-based pediatric population. To examine the molecular epidemiology and disease severity of HRSV in relation to other potential respiratory pathogens in hospitalized Jordanian children.
Methods: Between December 2003 and May 2004, a total of 326 nasopharyngeal aspirates (NPAs) were collected from Jordanian children younger than 5 years of age hospitalized with ALRTI. Total RNA and DNA were extracted separately from the NPAs by using commercial kits. The genome of HRSV was detected by reverse transcription-polymerase chain reaction (RT-PCR). HRSV-positive strains were classified into two subgroups A and B by the restriction fragment length polymorphism (RFLP) analysis of the nucleoprotein (N) gene using 5 restriction endonucleases (Hind III, Pst I, Bgl II, Rsa I, and Hae III). HRSV amplicons were typed into six nucleoprotein genotypes (NP1-NP6) on the basis of their restriction endonuclease digestion profiles. RT-PCR was also used for the detection of HMPV, FLUA, FLUB, HPIV 1-4, HRV, HCoV-NL63, and HCoV-HKU1. PCR was used to detect HBoV, HAdV, Mycoplasma pneumoniae, and Chlamydia spp.
Results: Overall a potential pathogen was detected in 252/326 (77.3%) of children. HRSV was the most frequently detected pathogen (140/326: 43%). HRSV was found more frequently during the winter (January/February), being less frequent or negligible by spring (March/April). Analysis of 135 HRSV-positive strains using RFLP showed that 94 (70%) belonged to subgroup A, and 41 (30%) to subgroup B. There were also two cases of mixed genotypic infection. Only four of the six previously described N genotypes were detected with NP4 predominating. There were no associations between subgroup or NP-genotype and disease severity. HRSV was significantly associated with more severe ALRTI and the median age of children with HRSV was lower than for those without. Next in order of frequency were HAdV (116/312: 37%), HBoV (57/312: 18%), HRV (36/325: 11%), Chlamydia spp (14/312: 4.5%), HMPV (8/326: 2.5%), HCoV-NL63 (4/325: 1.2%) and FLUA (2/323: 0.6%). FLUB, HPIV 1-4, HCoV-HKU1 and M. pneumoniae were not detected.
Conclusion: This study has confirmed that HRSV is the most frequent cause of severe ALRTI in young children in Jordan. The recently-described HMPV, HBoV, and HCoV-NL63 have also been identified as significant causes of community-acquired ALRTI in the same study population. Further studies over longer periods of time are warranted to better determine the role of the different HRSV genotypes in the epidemiology and the severity of disease and their inter-relationship with other respiratory pathogens. This information could inform better therapeutic approaches and vaccine development for ALRTI.

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Problematic Severe Asthma in Older Children

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Most children with asthma respond to low doses of inhaled corticosteroids, but a few remain symptomatic despite being prescribed the routine usual asthma medications. The first steps are to ensure the diagnosis is correct, and that the inhaled medications are being given with an appropriate device. If the child continues to be symptomatic, with any or all of chronic symptoms, acute exacerbations, the need for regular oral corticosteroids, or persistent airflow limitation, then they are considered to have problematic, severe asthma. The next step is to perform a detailed evaluation, including a nurse-lead home visit, to determine if the child has difficult to treat asthma, which improves if the basics are got right, or severe, therapy resistant asthma, which latter group would be candidates for cytokine specific therapies. If severe, therapy resistant asthma is the likely issue, then detailed invasive investigation is performed,

including a bronchoscopy, bronchoalveolar lavage and endobronchial biopsy, and trial of adherence with a single intramuscular injection of depot triamcinolone. After detailed phenotyping, an individualised treatment plan is determined. Future work will determine the roles of proximal and distal inflammation, as well as the relative importance of intramural (mucosal) and intraluminal infection. The stability of paediatric asthma phenotypes over time is more variable than those of adults, and the implications of a change of phenotype are yet to be determined. However, it is quite clear that the novel molecular therapies, such as anti-interleukin 5, are only suitable for small subgroups of patients; one size definitely does not fit all, and careful phenotyping of severe, therapy resistant asthmatics is needed if the right treatment is to be prescribed

Hall E Session 1
Orthopedics - General

93
Arthroscopic Surgery of the Hip Joint

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Since 1990 the number of cases needing hip arthroscopy has increased along with a better understanding of the pathology of different parts of the hip joint, especially in young patients and athletes with hip injuries. However, there are not many publications regarding long term results.
This lecture will present indications, contra indications and hip arthroscopy as a pre-operative diagnostic tool. Personal experience in hip arthroscopy since December 2006 with 42 patients.
The setting is of paramount importance in hip arthroscopy, how is it done preferably? Techniques for hip arthroscopy that will achieve a better understanding and feasibility of the hip joint to achieve a successful, satisfactory result for the patient.

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Extensor Mechanism Repair of the Knee Joint with Synthetic Implants

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Wide resection of intraarticular tumors of the distal femur or proximal tibia resection often need augmentation or total reconstruction of the extensor mechanism. We describe a new method of reconstruction using a polyester ligament (Lars®) with a minimum elongation rate of less than 7% and aminimal rupture level is 4000 N. Twenty two patients (14 men, 8 women) with a mean age of 32 (8-75) years with extensive tumour resections around the knee joint were evaluated after a mean follow up of 18 months (6 to 36 months) according to their active and passive range of motion of the knee joint, extension lag, and revisions. The patient´s functional outcome and satisfaction were analysed with the TESS and Enneking-Score. In 8 cases the Lars® ligament implantation was carried out at the primary operation, in 14 patients the reconstruction was performed during a revision procedure. 2 patients received endoprosthetic reconstruction after a primarily performed resection-arthrodesis. Extraarticular resection was performed in 10 patients.
The mean TESS –Score was 72 (39-93). The mean Ennking-Score 61 (17-90). 6 patients had excellent knee function with a lag of extension less than 5 degrees, 4 patients had an extension deficit of less then 20, 3 patients had less then 40 degrees and 6 patients could not lift their limb extended against gravity, although no patient required any kind of walking aid. All implants showed stable ingrowth in the radiographs at the last follow up. The results confirm a clear benefit of augmentation or defect reconstruction of the extensor mechanism of the knee joint using the Lars® polyester ligament in limb salvage surgery.

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Mini Open Cuff Repair, Still Allowed Today?

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- Rotator cuff repair at the insertion between the tip of tuberosity and neck of humerus is mandatory.
- Technical skills are of paramount importance.

- Aspects to consider in order to achieve a stable footprint reinsertion.
- Arthroscopic footprint reconstruction using anchor sutures.
- How to determine the true edges of the lesion.
- Cleavage lesions
- Mobilisation of the musculo-tendinous unit.
- There are still several practical arguments in favor of open rotator cuff repair
- When leaving the standard treatment one must be certain to offer a real advantage to the patient
- Compared to open and arthroscopic, mini open techniques are inferior in terms of true defect determination and mobilisation of the musculo-tendineous unit
- Arthroscopy seems to be a safe and reliable option in smaller and medium-size tears

96
Development of Orthopaedic Oncology over the Last 4 Decades

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In a 40 years survey of the treatment of bone and soft tissue sarcomas, a significant change from ablative surgery to limb salvage procedures could be detected. Limb salvage surgery, nowadays, became the golden standard in sarcoma treatment worldwide. Furthermore, technical improvement of implants and reconstructive techniques enabled the patients an excellent mobility and social integration. The promising results of modular tumour-endoprostheses had also an important impact on severe revision surgery of conventional endoprostheses.
The lecture will give an analysis on a 40 years experience in sarcoma treatment in our single institution and will document the decennial oncological and surgical improvement. On that basis state of the art reconstruction with megaprostheses will be presented, and especially the avoidance from pitfalls and their possible technical solution will be demonstrated.

Hall E Session 2
Orthopedics – Spine

97
Idiopathic Scoliosis Approach and Treatment

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(The abstract will be published online)

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Vertebroplasty And Kyphoplasty In The Management of Osteoporotic Spine Fracture

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Osteoporotic spine fractures are one of the major spinal problems Within the growing number of aging population. Newer technologies and techniques have facilitated the treatment of these fractures utilizing vertebroplasty or kyphoplasty in a minimally invasive intervention. Vertebroplasty,have given an introduction to vertebral body augmentation utelizing PMMA. Kyphoplasty, has the advantage of correcting the vertebral body hight and followed by vertebral body augmentation. An overview of the differences between the two techniques, along with indications, complication, clinical outcome, and surgical procedure is described within the content of this paper.

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Defect Reconstruction after Severe Bone Loss in the Pelvis

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The situation of a big peri-acetabular pelvis defect after multiple revision surgeries of a conventional hip replacement is similar to the situation occurring after a planned pelvis reconstruction in tumour patients.
A considerable number of reconstruction techniques are coming from the oncology orthopaedic surgery, because of this fact the lecture will rely on the different techniques that are used in tumour surgery considering the anatomical circumstances.
To replace the proximal femur the modular tumour endoprosthesis is the first option to be considered.

For bone defects in the pelvis Enneking classification has been proved to be useful in classifying the types of resection used.
One of the first to be considered in endoprosthetic treatment is the original endoprosthetics used was the saddle prosthesis which is fixed as a saddle onto the preserved iliac bone,
A big step forward was made in using a custom-made prosthesis, which allows near anatomical reconstruction
In patients where you are able to preserve parts of the illium the so called socket pan (Sockelpfanne) is used.
The implants were also proved to be beneficial in bigger bone defects in revision surgeries.
To prevent subluxation in cases of soft tissue resection, we use the Lars tumour band that functions as an artificial hip capsule.
The original flial hip situation is becoming popular again because of using the Winkelmann Hüftverschiebeplastik
In the end, today a lot of pelvic bone defects near to the hip joint can be reconstructed with good functional outcome and the experience gained out of tumour surgery could be used to achieve more successful and satisfactory results in revision surgeries of the hip joint.

100
Surgery for Primary Vertebral Tumors and Solitary Spinal Column Metastatic Disease: Techniques of Oncologically Sufficient Resections at the Spine

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Primary malignant bone tumors of the vertebral column, i.e. bone sarcomas of the spine are inherently rare entities. Vertebral osteosarcomas and chordomas represent the largest groups, followed by the incidences of chondro-, fibro- and Ewing`s sarcomas. Detailed clinical and neurological examination, complete radiographic imaging (radiographs, CT, MRI) and biopsy are the decisive diagnostic steps. Oncosurgical staging systems for spinal tumors can serve as a decision-guidance to an individual oncological and surgical treatment. Subsequent treatment decisions are part of an integrated, multimodal oncological concept.
Due to their topographic vicinity to the essential central neurovascular or visceral structures, vertebral column and sacral sarcomas have long been thought to be either inoperable by en bloc excision or at least very difficult in attaining tumor-free margins. To reduce the drawbacks of intralesional surgery and to improve survival times, different techniques for wide resections at the spine, i.e. single or multilevel en bloc spondylectomies involving different advanced resection techniques have been developed. En bloc spondylectomy involves a posterior or combined anterior/posterior approach, followed by en-bloc laminectomy, circumferential (360°) vertebral dissection, blunt ventral release of the large vessels, intervertebral discectomy and rotation/ en-bloc removal of the vertebra along its longitudinal axis. Due to the complex interdisciplinary approach and the challenging surgical resection techniques management of vertebral bone sarcomas is recommended to be performed in specific musculoskeletal tumor centers.

Hall E Session 3
Orthopedics & Reconstructive Surgery

101
Surgical Management of Complex Extremity Injuries: A Reconstructive Algorithm

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The management of complex high-energy extremity trauma, i.e. IIIB/ C open fractures with major segmental bone/ soft tissue loss continues to challenge reconstructive surgeons.
Appropriate treatment includes correct initial evaluation and classification of injury severity, realistic prediction if successful salvage can be reached, radical initial debridement, early skeletal stabilization with eventual shortening followed by serial debridement and definitive plastic soft tissue closure within 72 hours. The specific guidelines for decision making and timing of reconstructive measures are summarized in a treatment algorithm. This algorithm considers overall state of the patient (incl. additional injuries/ polytrauma), individual fracture type, type of osteosynthesis, degree of soft tissue damage and use of

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adequate coverage options, including local or free tissue transfer.
The proposed multidisciplinary approach involving trauma-orthopedic surgery combined with vascular, plastic and neuro- as well as microsurgery has significantly increased the rate of extremity salvage and successful replantations and improved morbidity, function, quality of life and long-term functional outcome. The multisdisciplinary treatment of complex trauma of the extremity is an integral task of the surgical trauma center. Adherence to this priority-adapted therapeutic strategy. combined with realistic assessment of available clinical experience and resources have proved to decisively influence the prognosis.

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New Technologies and Orthognathic Surgery

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The achievement of the ideal result in Orthognathic Surgery is based on three prerequisites. These are the correct diagnosis, the detailed and meticulous planning and finally the precise execution of the surgical plan.
Computerized methods based on the use of data from conventional and cone beam CT scanning in surgical planning, are becoming more and more popular because they potentially offer more accurate diagnostic and planning tools.
The use of these technologies in orthognathic surgery will be presented and the potential benefits will be discussed.

103
The Changing Role of the Plastic Surgeon in Limb Trauma.

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Historically limb trauma has often presented late to the Plastic Surgeon. Although techniques such as acute shortening and bone distraction have altered the management of some limb injuries the importance of early intervention by an experienced multidisciplinary team have recently been highlighted by an evidence based review of lower limb trauma by the British Orthopaedic Association and the British Association of Plastic Reconstuctive and Aesthetic Surgeons.
This review will be used as a basis to discuss the early management, classification, fixation guidelines and soft tissue reconstruction of open lower limb fractures including indications for amputation. Management of compartment syndrome and late complications will also be discussed.

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Orbital and Zygomaticomaxillary Fractures

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Orbital and Zygomatic complex (ZMC) fractures are encountered quite often in the everyday practice, a lot of times simultaneously.
The bony orbit is housing the globe providing all the necessary support for the normal function of the eye. The zygomatic bone plays a key role in the integrity of the orbit as well as in the overall facial esthetics.
The importance of the successful management of fractures of the orbit and the ZMC is more than obvious since the possible sequelae can be extremely serious both functionally and esthetically.
Our experience in treating these fractures will be presented.

Hall E Session 4
Orthopedics & Rehabilitation

105
Achille's Tenopaties

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About Achilles tendon, can not speak « tendinitis », because the clinical aspects are very numerous. There is indeed a great variety of tenopaties for which the modalities of appearance, the clinical aspects and the treatments are different.
Medical imaging is useful for clarify the diagnosis.
Echography allows a dynamic study and to appreciate the intratendinous structure.
MRI is useful in case the operative decision.

The different pathologies Tenosynovitis
The examination most often shows a crepitus. There are crepitant, exsudative, stenosis forms. In general, the treatment uses NSAI. Mesotherapy :Crépitant form : NSAI – Lidocaïne – Calcitonin, Exsudative form: NSAI - Lidocaïne – Vasodilatator, and Stenosis form : Procaïne - Vasodilatator - Calcitonin
Tenopaties (body) a. Nodular tenopathy : This is the most common lesion. These are scar areas formed after micro breaking of tendon fibers. b. Spindle-shaped tenopathy There is a regular and elongated thickening of the tendon. c. Achilles pain without morphological changes. Diffuse pain and examination very poor : only pain. d. Treatment : Rehabilitation is essential with transverse massage and passive or active stretching. e. Mesotherapy : NSAI = Lidocaïne
Enthesitis It is manifested by posterior talalgia associated with tumefaction of the calcaneus. The pain is localized at tendon insertion. a. Treatment : NSAI. b. Mesotherapy : NSAI+Lidocaïne+Calcitonin
In front of Achilles bursitis: It is a conflict between the upper edge of the calcaneus and the anterior side of the Achilles tendon. The pain is located higher than the tendinous insertion. a. Treatment : NSAI = infiltration inside the bursa. b. Mesotherapy : NSAI + Lidocaïne + Vasodilatator
In all these protocols, the technique is still deep intradermal injection (4mm), mostly it will do 1 session every week, 3-4 times.
The use of calcitonin may occasionally cause nausea.
Conclusion: The exact diagnosis is essential for good therapeutic choice. Imaging provides real help.
In sports, the surgical solution is often proposed. So the athlete must quickly have again its effectiveness.
Mesotherapy has a place in combination with conventional treatments.
It can often reduce or even eliminate the anti-inflammatory treatments.

106
Delta Shoulder Prostheses

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This paper will present the delta shoulder prosthesis and its history, development along with biomechanics and function. It is of paramount importance to understand the concept behind the reverse shoulder prosthesis, indications and contra indications. The aim of the prosthesis treatment, different components and designs will also be presented. Pre-operative settings, techniques for implantation to achieve better and satisfactory results

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Shoulder Disorders In Mesotherapy

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The shoulder is mainly the site of numerous degenerative or micro traumatic disorders.
Rhumatology: essentialy
1- OMARTHROSIS
It is a disease of elderly patients. It shows by painful limitation of movement, mechanical pain with stiffness and functional impairment, more or less. The radiography revealed a articular narrowing, geodes, subchondral intensification, periarticular ostéophytes. The treatment always included rehabilitation. In mesotherapy, we distinguish 2 situations:
ACUTE pain:
1st syringe : (Lidocaïne 1% 3ml, Piroxicam 0,5ml, Diazepam 0,25ml depth : 4mm)
2sd syringe : (Calcitonin 100 UI, Lidocaïne 1% 1ml, depth : 2mm)
CHRONIC pain :
(Magnésium 2ml, Diazepam 0,25ml, Etamsylate 2ml, depth : 2-3mm)
The rate is 1 session every 2 weeks and then according to the pain
2- ACROMO-CLAVICLE ARTHROSIS
It is often secondary to major sports (tennis, squash, rugby, judo). It is a mechanical pain and it develops gradually.
ACUTE pain :
(Lidocaine 1% 2 ml, Piroxicam: 0.5ml, Calcitonin 50 IU, depth : 4mm)
CHRONIC pain :
(Calcitonin 100 IU, Magnesium 2 ml, Vitamins 2 ml, depth : 2-3mm)

The rate is 1 session every 2 weeks and then according to the pain
3- RETRACTILE CAPSULITIS
Severe pain gradually giving way to a permanent stiffness.
Mesotherapy Treatment :
(Lidocaine 1% 2ml, Diazepam 0.25 ml, Calcitonin 50UI, depth : 2-3mm)
around the shoulder and across the shoulder region
Do not hesitate to add silicon, magnesium and Vitamins
Sessions : once a week for 6 weeks, then according to the development.
4- SHOULDER HYPEROSTOSIS
It is a stiffening of the shoulder, normally painless. Radiology showed an exuberant osteophytes
Treatment:
(Calcitonin 50UI, Lidocaine 2ml, Diazepam 0.25 ml, depth : 2-3m)

SPORT MEDICINE : essentialy
Subacromial conflicts most often anterior
It is a complex disorder consisting of chronic pain syndrome of the shoulder, multifactorial etiology and occurs at any age. The responsible factors are mechanical, vascular, degenerative, muscular, traumatic, capsular, anatomical. This shows the complexity of this set.
Mesotherapy is an element of the therapeutic strategy . Basically it will act on 3 elements:.
- Tendinous insertion with (LIDOCAINE-NSAID - VASODILATOR at 4mm)
- Acromiocoracoid ligament with (LIDOCAINE-NSAID-CALCITONIN at 4mm)
- Muscle with (LIDOCAINE-MUSCLE RELAXANTS at 2-3mm)

every week, 3 time then every 2 weeks, 2-3 times
Conclusion: Mesotherapy is an effective way to fight against osteoarthritis in general, slowing progress and reducing significantly the pain.
In sports medicine, it is a supplement which helps to shorten the evolutionary phase.

Hall F Session 4
General Surgery

108
Pancreatic Cystic Disease

Mahmoud Abu-Khalaf MD (Jordan)

109
WHO Surgical Safety Checklist: Wide Implementation

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About 234 million operations are done globally each year. with A rate of 0.4-0.8% deaths and 3-16% complications, this means that at least 1 million deaths and 7 million disabling complications occur each year worldwide.
Previously the surgical field was somehow neglected by the patient safety programs and the public health personnel. But with the rising number of surgical operations and its complications around the world attention started to focus on safety programs in surgical field.
All who are involved in health services(surgeons, anesthetists, nurses etc..) ,started to discuss the best way to create an environment liable to make safety presents on firm base in surgical services. These discussions crowned by the labor of ' surgical safety checklist '.
As the spread of this checklist around the world , needs to be tested at different hospitals . it was included in a challenge worldwide called "Safe Surgery Saves Lives" the second global challenge of the world alliance for patient safety.
The purpose for this testing is of two benefits : first is to expose problems with implementation and acceptance of the checklist, and second is to confirm that using such a checklist will actually improve surgical safety. The testing is currently undertaken in a selection of operating rooms & in facilities representing the six WHO regions. all of the sites are involved in this work have a member who is part of the international working group.
Surgical Safety Checklist can be used by practitioners interested in promoting safety and improving quality of surgical services. The checklist is designed to be simple and widely applicable. It aims to reinforce

established safety practices, and many of the steps are already accepted as routine in facilities around the world.
Implementation of the checklist was associated with concomitant reductions in the rates of death & complications among patients at least 16 years of age who were undergoing noncardiac surgery in a diverse group of hospitals.
An overview of the MOH experience in Implementating the checklist , & the feasibility of accomplishing it at the national & regional levels will be stressed here.

110
Surgical Management of Liver Hydatid Cysts at King Hussein Medical Center

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Objectives: To evaluate the surgical management of liver hydatid cysts at King Hussein Medical Center.
Methods: This is a retrospective review of 120 patients who underwent partial hydatid liver cystectomy (deroofing) from January 2005 to January 2009 at King Hussein Medical Center. Patients were evaluated with ultrasonography and computed tomography scan preoperatively to confirm the diagnosis and determine the extent of the disease, accordingly the operative procedure was planned. The aim of surgical intervention is evacuation of all cysts and obliteration of the cystic cavity. Postoperatively the patients were followed up for twelve months.
Results: All patients were operated on for their liver hydatid cysts. Seventy three patients (60.8%) were females and 47 (39.2%) were males. The median age was 37.5 years (range: 17-76 years). 84 patients (70%) had one cyst and the remaining 36 patients had multiple cysts. Superimposed infection with abscess formation was found in 13 patients (10.8%). The most common post-operative complications were wound infection, right sided atelectasis, bile leak and biliary obstruction. The morbidity rate was 13%, there was no mortality. During the follow up period of 12 months; there were 9 recurrences (7.5%).
Conclusion: Partial cystectomy is safe and effective way of treatment for liver hydatid cysts. The aim of surgical intervention is evacuation and obliteration of the cystic cavity. Cyst size, number and localization are important in determining the intraoperative procedure and post-operative outcome.

111
Breast Oncoplastic Surgery & Skin Sparing Mastectomy with Immediate Breast Reconstruction using Latissimus Dorsi Muscle Flap

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Objectives: To assess the oncologic and cosmetic outcomes in women with breast carcinoma who were treated with breast-conserving therapy using oncoplastic technique and skin sparing mastectomy with immediate reconstruction using Latissimus Dorsi muscle flap.
Methods: This is a descriptive study conducted at Queen Alia Hospital between January 2008 until December 2009, where ten female patients with early breast cancer and ductal carcinoma in situ (DCIS) were studied. Age ranged between 29-65 years. Six patients underwent oncolpastic breast technique and four underwent skin sparing mastectomy (SSM). All patients underwent immediate breast reconstruction using Latissimus Dorsi Muscle flap.
Results: All of the operated patients achieved satisfactory cosmotic outcomes with preservation of the oncologic principles; none of them had a local recurrence.
Conclusion: In the era of oncoplatic breast surgery and early detection of breast cancer the number of mastectomies and breast deformities after breast conserving surgery (BCS) should be decreased. This type of surgery is being performed by breast surgeons trained in oncoplastic techniques who can offer immediate reconstruction with both therapeutic and economic benefits.

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Drainage of Pleural Effusion: the Task of Whom?

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Objectives: to review the formal consultations that is received by the thoracic surgery team for the purpose of pleural catheter insertion to drain different cases of pleural effusion from different departments.
Methods: formal consultations to drain pleural effusion were reviewed retrospectively from the period between January 2008 and December 2009 at the thoracic surgery division of the royal medical services. Four hundred ten patients were included in the study. These data were: Department of the consultation, amount of pleural effusion (mild, moderate or sever), estimated time to drain the effusion and appropriateness of the consultation. Comparison with other international institutes about the task of whom to drain the pleural effusion was done.
Results: There were 173 females (42%) and 237 males (58%). Age ranged from (12-84 years). The most common consulting department was the nephrology (27%) followed by the oncology (19%). Two hundred thirty one (56.3%) of the consultations showed mild pleural effusion, that could be treated medically or by simple pleural tapping. The estimated time to prepare the tools inside the ward (tube or catheter, analgesia, surgical set, etc) ranged from 15 min to 2 hours while time estimated for the procedure was 10min to 20min.
Conclusion: Physicians that deal frequently with pleural effusion management such as the oncologists and the nephrologists should be able to drain pleural effusion either by thoracentesis or pleural catheter, and they should be subjected to training courses in pleural catheter insertion. Only complicated cases should be referred to the thoracic surgeons.

113
Single-Stage Reconstruction of Infected Sternotomy Wound using Left Sided Islanded Pectoralis Major Muscle-Only Flap, our Early Experience at King Hussein Medical Center

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Objectives: To evaluate our experience and study the advantages and disadvantages of surgically treating infected deep midsternotomy wound using a single stage of debridement and reconstruction with a left sided islanded pectoralis major muscle only flap.
Methods: Descriptive analysis of eight patients with deep sternal wound infection following open heart surgery in the period between March 2009 and January 2010 was conducted. We adopted exclusively single-stage management plan including sternal debridement and wound closure using left sided pectoralis islanded muscle-only rotational flap. Those patients were analyzed with regard to their age, sex, timing of their reconstructive surgery after the primary cardiac surgery, the rate of complications and length of hospital stay.
Results: Eight patients with deep sternal wound dehiscence were included in the study. The male-to-female ratio was 4:1. Age ranged from 45=64 years. Time of surgical reconstruction ranged from three weeks to fourteen months after the primary cardiac surgery. Three patients developed subcutaneous seroma postoperatively which was treated non-surgically. The length of hospital stay ranged between five to thirteen days postoperatively. All patients recovered well and there were no mortalities.
Conclusion: Patients with infected deep midsternotomy wounds may benefit from a single stage management using radical debridement and reconstruction with a left sided islanded pectoralis major muscle-only flap. The procedure is safe and effective. It reduces the morbidity and mortality as well as the length of hospital stay of those high risk patients.

114
Pulmonary Hydatid Disease: A Review of 27 Cases

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Objectives: To review pulmonary hydatid cyst cases treated surgically at the Royal Medical Services over the last three years.
Methods: This retrospective study was performed at the thoracic surgery division of the Royal Medical Services in the period between January 2007 and December 2009. Twenty seven cases were included in this study. Cases that had been treated medically were excluded. Mode of presentation, diagnosis, surgical approach and complications were documented and analyzed.
Results: There were 15 male (55.6%) and 12 females (44.4%). Age ranged from 15-72 years (mean 44 ±10.3 years). Cough and hemoptysis were the most common presenting symptoms which were found in 20 cases (74.1%). Right sided cysts were found in 9 cases (33.3%) while left sided cyst were found in 13 cases (48.1%) and in 5 cases (18.5%) cysts were found bilaterally . We performed enucleation and capitonnage in 4 patients (14.8%), wedge resection in 5patients (18.5%) and deroofing and capitonnage in 18 patients (66.6%). All patients had a smooth recovery apart from 3 patients (11.1%) who developed prolonged air leak, two of which were treated conservatively.
Conclusion: Different surgical techniques including deroofing and capitonnage and wedge resection are effective methods to treat pulmonary hydatid cyst disease with minimal complications and satisfactory results.

Hall G Session 1
S2 Surgical Training Symposium

115
Formal Surgical Training in the Early Years

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Shortened training, reduced working hours of junior Doctors, and increased patient assertiveness, have made a revaluation of Surgical teaching and training necessary. This lecture examines the problem, and sets out the framework which we are following in the United Kingdom.

116
The Essence of Leadership in a Rapidly Changing World

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(The abstract will be published online)

117
Current Methods of Assessing Surgical Trainees in the UK

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As in many countries surgical training in the UK has for many decades consisted of a largely apprenticeship based system with in training progress assessed by a fairly general assessment the RITA performed usually annually and a final summative exam.
This whole system has undergone huge changes in the last few years with the drawing up of the Intercollegiate Surgical Curriculum Project with regular formative assessments recorded on a computerised database and annual competency based assessments although still with summative exams.
The introduction of the European Working Time Directive has brought further pressures on the training system which will require the introduction of much more targeted training. We have performed some work on methods of assessing laboratory based microsurgical training which will be presented.

Hall G Session 2
Dermatology & Plastic Surgery

118
Know Your Materials: The Thin Line Between Science and Science Fiction

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A number of treatments exist in the field of cosmetic dermatology. Some claim success and have been scientifically proven so, others exist in the realm of science fiction and the promise achieving perfection. Dermatologists should be quite alert and be able to evaluate the new products which are introduced in the market. They should build up their judgment on both scientific bases and their experience rather that what pharmaceuticals say. Physicians should know what works and what doesn't in this ever-changing field. Safety of the patient should be priority of any practicing doctor in this field.

119
Advances in Cutaneous Laser Treatment

Iain Mackay MD (UK)
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I will give a general overview of currently available cutaneous laser treatments including depilation, tattoo removal and treatment of pigmented lesions.
I will concentrate mainly on the treatment of capillary malformations and the reasons why improvement is often limited because of the depth of the abnormal vessels in relation to the depth of penetration of laser beams of a wavelength absorbed well by haemoglobin. I will discuss potential ways we have tried to achieve better results.
I will also discuss laser resurfacing and the potential future role of fractionated lasers
I will also discuss the multidisciplinary management of vascular anomalies not suitable for laser treatment.

120
The Perfect Lips

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Perhaps one of the most important structure of the human face are the lips. Lips are important in social and sexual interaction, communication and a source of attraction between the sexes. Their structure and contour can have a profound effect on the general image and beauty of the person. With time and through the effect of aging and the elements, the lips lose some of their sharpness and construct, giving rise to a need for replenishment and volume enhancement.
Not all lips are the same and all should be handled differently when it comes to soft tissue augmentation. Though a scientific structure and ratios have been proposed and developed, beauty is in the eyes of its beholder and should be considered an art form.
In this session, we will discuss:
Lip anatomy and normal variances.
Augmentation of the lips and materials that can be used.
Limitations of soft tissue augmentation in creating the perfect lips

121
Complications in Cosmetic Dermatology

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The field of cosmetic dermatology has changed drastically in the few past years. The advent of newer treatment techniques in facial aesthetics has made many physicians claim expertise in the field at the expense of patient safety. A complication is any unintended sign including an abnormal laboratory finding, symptom or disease associated with the use of a medical treatment or procedure, regardless of whether it is considered related to the medical treatment or procedure. All doctors have had a complication at one point in their professional career. The success of a dermatologist is not weighed on the number of complications they faces, but their ability to resolve them.
In this session, the audience will: Understand the definition of a complication.
Learn how to avoid complications.
Realize the importance of knowing how to treat a complication.
Patient education during the occurrence of a complication.
Legal and ethical issues when encountering a complication

Hall G Session 4
Psychiatry

122
Why do People Hallucinate?

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Background: The propensity to hallucinate represents a natural characteristic of the human brain. Hallucinations occur in health under specific conditions of waking or falling asleep. Rarely, however, do hallucinations predominate and intrude on conscious awareness except in severe neuropsychiatric conditions such as schizophrenia. In these clinical conditions, hallucinations are distressing and a significant cause of suicide. Hence, an accurate understanding of their mechanisms is important in the effort to alleviate the distress of hallucinating.
Neuroimaging allows us to identify the key neural components that form the basis for psychotic experiences such as hallucinations. Investigations using structural and functional neuroimaging techniques have identified regions of cerebral cortex central to the genesis of hallucinations. Auditory verbal hallucinations, for example, involve activity in auditory and language regions. However, so far, the evidence falls short of a definitive model that explains why auditory hallucinations are perceived in the absence of an external auditory stimulus. Hence the objective is to develop a perceptual model for the genesis of auditory hallucinations that can be tested and improved.
Methods: I will review relevant studies, including some from myself and colleagues in SCANLab., that use functional magnetic resonance imaging. These studies examine 'spontaneous' activity of auditory cortex as well as between-condition contrasts using Statistical Parametric Mapping in those individuals with and without a tendency to hallucinate.
Results: A series of neuroimaging studies help us build up a workable neural model that helps explain the pathogenesis of auditory hallucinations. Within this model is a description of component perceptual processes that lead to an individual's perception of auditory hallucinations as real auditory events in the absence of external auditory signals.
Conclusion: Auditory hallucinations are perceived as real mental events that engage specific 'perceptual modules'.

123
Maladaptation among Peacekeeping Troops: Jordanian Experience in Liberia

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Objectives: To assess the mental health maladjustment of Jordanian military personnel during deployment to Liberia.
Methods: Semi-structured interview was developed to fulfill the purpose of this study. Sources of stress were identified. The Arabic version of the General Health Questionnaire was applied at pre and after 3 months of deployment.
Results: One hundred seventy two non - commissioned officers (91% of the available sample) participated in this study. All of them were males. Their ages ranged from 23 to 51 years with the mean age of 30,2 years (SD =6.3). The most common source of stress for all soldiers, mainly the single subgroups were the lack of recreations, repetitive routine job (46.5%, 57.1% respectively). Almost half of married soldiers were more distressed by separation from home and family. Adjustment reaction rate was 5.8%. No significant deterioration in the mental health status of the participants was noted through deployment to Liberia.
Conclusion: Adjustment Reaction is a stress-related, time-limited maladaptive pattern in peacekeeping missions. The rate was almost 6%. Deployment to low intensity conflict regions is not detrimental to mental health.

124
Adjustment Disorder with Anxiety Features among Jordanian Peacekeepers in Liberia

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Objectives: This study aims at investigating the adjustment disorder with anxiety levels and its relationship to the sources of stressors, age, education, and marital status among Jordanian peacekeepers in United Nation mission in Liberia
Methods: The study group consisted of one

hundred and eleven Jordanian peacekeepers deployed to the United Nation Mission in Liberia (UNMIL) during 2007; data were prospectively collected during November 2007. Peacekeepers were screened after they spend five months in the mission; every soldier was interviewed individually using a semi structured interview form and an Arabic version of Zung self-rating anxiety scale .
Results: All participants were males, their age ranged between 20-49 years, with various levels of education and marital status. None of the participants showed significant depressive symptoms or other psychiatric disorder except some anxiety features. Fifty eight participants (52, 3%) had normal range of anxiety (scores below 44), and 44 participants (39, 6%) had mild to moderate range of Anxiety, (scores 45-59), while 9 participants (8, 1%) had sever Anxiety, (scores 60 -74).There was significant correlation of severity of anxiety with age, educational background and marital status of the participants.
Conclusion: Some of Jordanian peacekeepers in the United Nation missions revealed anxiety due to variable sources of stress in the mission area. The younger the age groups the more to develop anxiety features.

125
Psychiatric Diagnoses of 250 Air Force Service Members Treated in Psychiatric Clinics, and The Influence on Their Military Service.

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Objectives: To find out the psychiatric diagnoses of Air Force service members presenting to the psychiatric services in Royal Jordanian Medical Services , the duration of service on presentation, and their fate in military service as a consequence.
Methods: The study involved two hundred and fifty servicemen who attended the psychiatric clinic at the Air Force Medical Facility, in the period between January 2004 and August 2007. Diagnoses were made using ICD-10 diagnostic criteria. The data collected included duration of service, and fate of those service members, as whether they continued service or had medical or administrative discharge.
Results: Criteria for anxiety disorders were met in 55% of the sample. Personality disorder was diagnosed in 11%, Psychoses in 10%, depressive illness in 8%, and 12% 0f the cases showed non-specific behavioral disturbance. The subjects had mean service duration of 11 years, and by the end of 2008, 68% were discharged from the service.
Conclusion: There is a tendency to over discharge service members with conditions which may not be severe in them, but interfere with duty performance according to military unit commanders. This basis for discharge may allow separation for many, who would not otherwise be eligible.

126
Understanding other People's Worlds-Cognition, Social Cognition and Schizophrenia

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Background: We understand other people's worlds through the mental process of 'social cognition'. The ability to make correct inferences about other people's intentions and thereby accurately predict their behaviour forms an aspect of social cognition central to successful interaction between individuals. Inaccuracies in this ability in schizophrenia can lead to profound misunderstanding between people, fuel paranoia and lead to a disengagement of patients from society. Alternatively, an absence of social cognition can lead to a paucity of interaction with others because of amotivation from the patient. Society tends to ignore such patients who can end up living socially and financially impoverished lives.
If we can understand the neural basis for social cognition, its deficits, and means of improvement, in schizophrenia, we may be in a better position to help patients who suffer as a result of abnormalities of social cognition. A number of studies have identified brain networks involved in social cognition in health and illness, such as in autism and schizophrenia.
Methods: Neuroimaging studies, including ours from SCANLab, will be reviewed. Specifically, I will focus on those studies that relate to those brain networks that

both underpin social cognition as well as being adversely affected by schizophrenia itself. Having identified these networks, I will review some recent work showing how treatment may influence brain activity relevant to cognitive processes relevant to social cognition.
Results: Studies using functional magnetic resonance imaging (fMRI) have revealed that: in patients with schizophrenia, 1) specific regions within prefrontal cortex exhibit enhanced response to social cognition tasks following pharmacological treatment, and 2) the level of signal enhancement within these regions correlates with measures of social activity.
A number of studies are now attempting to explore the neural basis of key cognitive processes that might influence clinical outcome in those with schizophrenia. I will illustrate these findings with some of our recent results that involve the use of theta burst stimulation (TBS) to enhance cognition in schizophrenia.
Conclusion: Neuroimaging studies provide support for the idea that specific brain changes are reflected in improved cognition and social cognition following treatment in schizophrenia.

Hall H Session 1
Neurology & Rehabilitation

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Multiple Sclerosis in Middle Eastern Countries, Historical and Epidemiological Perspective
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Until the 1980s Multiple Sclerosis was thought to be unique to Caucasians of North European Extraction with unusual altitudinal divide. Up until the 1980s and in the absence of reliable clinical diagnostic criteria most of the reports from "other" racial groups were based on celebrated small case reports of MS and MS like illnesses. Yet we now know that MS is prevalent in our parts of the world and there is sense of a change in epidemiology.
Reports from this part of the world as well as South East Asia to include Japan suggest two major changes, the first is a possible but significant increase in prevalence and the second a shift away from the spino-optical form towards the classical "European" type of MS. In this presentation I will try to analyse the apparent changes based on the historical facts and published data.

128
A Review of the Evidence Supporting the Efficacy of Stroke Rehabilitation
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There is convincing and overwhelming evidence that supports the efficacy of rehabilitation in patients who have sustained a stroke. This lecture will offer a review of the evidence gained from clinical trials about the efficacy of rehabilitation in patients post-stroke. The presentation will include a review of randomized clinical trials and will report on knowledge gained from large trials based on practice-based evidence.

129
The Management of Trigeminal Autonomic Cephalgias and "Atypical" Facial Pains
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Trigeminal Autonomic Cephalgias (TAC) are well recognized both for pain severity and complexity of diagnosis and management. They share cyclical abnormalities of Trigemino-Hypothalamic axis and thus are charcaterized by short-lasting V1 Trigeminal pains with prominent Cranial Autonomic Features. They differ in relation to the quality and duration of the pain as well as in responsiveness to medications. An overview of the Pathophysiology, clinical features will be offered.
Masticatory Myofacisal Pain is common and commonly misdiagnosed as either Trigeminal Neuralgia, Temporal Arteritis or "Atypical Facial Pain". The recommended diagnostic criteria will be detailed.

130
Recent Advances in Stroke Rehabilitation
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The insights gained from studies of neuroplasticity in animals and in humans have stimulated many trials of new therapies

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designed to help remediate neurological deficits in post-stroke patients. The initial studies of Constraint-Induced Movement Therapy have been followed by reports on Body-weight Supported Treadmill Training and functional electrical stimulation. More recently there have been reports of enhanced recovery with the application of magnetic fields to the head and exposing the head of patients to subthreshold direct current. These latest techniques will be described and their potential explored.

Hall H Session 2
Neurology & Rehabilitation

131
Diagnosis and Management of Pain in Stroke Survivors
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In stroke survivors who are disabled and are attempting to regain a gratifying life after a stroke, pain can be a considerable complicating and limiting factor. Pain occurs in distinct patterns post-stroke, both during the early stages of rehabilitation and as a late complication. There are a variety of musculoskeletal and central nervous system conditions that may be responsible for debilitating pain. The lecture will review the diagnosis and management of these patients with pain syndromes.

132
Comprehensive Study in Intractable Epilepsy
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Objectives: This study was undertaken to find out the profile of intractable epilepsy and to determine the factors which are predictors of poor prognosis.
Methods: One hundred patients (60 males & 40 females) with intractable epilepsy attending the neurology clinic at King Hussein Medical Center were evaluated. Detailed history, examination, investigations like electroencephalogram (EEG), computerized tomography (CT) & magnetic resonance imaging (MRI) of the brain & details regarding the pharmacotherapy were analyzed.
Results: The age of the patients ranged from 14 to 70 yrs (mean 29 yrs). Mean duration of seizures was 11.44 yrs. Commonest seizure type was partial seizure (74%). Amongst patients with generalized seizures (26%), 14% had multiple seizure types. The mean value of seizure frequency was 12.39 per month. Seventy five patients were in the symptomatic group with cerebral trauma being the most leading cause. Fifty patients each had one or more abnormal predictors of intractable epilepsy. EEG was abnormal in 77% of cases with background abnormality in 20% & focal abnormality in 36% cases. CT scan was abnormal in 47% cases with commonest abnormality being gliosis (20%) & chronic infarct (9%) while brain MRI was abnormal in 71% of the patients. Sixty patients were receiving a combination of two drugs, Thirty two patients' three drugs & eight patients were on four drugs.
Conclusion: Partial seizures were the commonest seizure type leading to intractable epilepsy. Cerebral trauma is the leading etiological factor. Poor prognostic factors in intractable epilepsy are organic brain lesions, partial seizures, multiple seizure types & abnormal EEG activity. There was no difference in seizure control in patients with intractable epilepsy who were on two drugs and patients who were on more than two drugs. Addition of a third antiepileptic drugs to existing combination only increases adverse effects without better control of seizures.

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Clinical Profile of Juvenile Myoclonic Epilepsy in Jordan.
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Objectives: To document the epidemiology and pertinent clinical and management aspects of juvenile myoclonic epilepsy, in a cohort of Jordanian epileptic patients.

These will be compared with international data. Our aim is to increase familiarity with this important, under-recognised and often mis-managed idiopathic generalised epileptic syndrome.

Methods: The clinical details of one hundred and thirty nine consecutive patients diagnosed with epilepsy at a new neurology clinic at Prince Rashed Hospital, Irbid in the North of Jordan, between July 2007 and October 2008 were reviewed. Epileptic patients were classified as having juvenile myoclonic epilepsy, based on the ILAE (International League Against Epilepsy) classification. The following were noted: Number of cases; age; sex; family history; percentage of patients having myoclonic jerks, generalized tonic-clonic convulsions and absence seizures; and whether the initial referral diagnosis and treatment were appropriate.

Results: Nineteen out of one hundred and thirty nine (13.7%) epileptic patients were classified as having Juvenile Myoclonic Epilepsy. Their age at time of diagnosis ranged from 14 to 44 years (mean 22.5 years). There were seven male (36.8%) and twelve female (63.2%) patients. A family history of juvenile myoclonic epilepsy was present in three patients. None of the patients were referred with an initial diagnosis of juvenile myoclonic epilepsy. By definition, all patients had a history of myoclonic jerks that was worse on awakening and after sleep deprivation. Seventeen (89.5%) and five (26.3%) patients had generalized tonic-clonic convulsions and absence seizures, respectively. On referral, eleven patients (47.9%) were on inappropriate or unsatisfactory treatment and three patients (15.8%) were not on any treatment. A positive family history was present in only 13.8% of patients in our study which is less than in most reported series. A possible explanation for this is cultural reservations and denial of a positive family history

Conclusion: Our study shows that in North of Jordan, juvenile myoclonic epilepsy is more common in females, unlike most studies in other countries which show only slight female preponderance. However, the most significant finding in our study was that juvenile myoclonic epilepsy is seriously under-diagnosed and mis-managed, by the referring general internist or family physicians, further and above that seen in other countries, leading to poor seizure control with grave consequence such as trauma, social isolation, unemployment and depression.

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Osteoporosis after Spinal Cord Injury

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Objectives: To asses the extent of bone loss in a group of spinal cord injured subjects and correlation to level , extent of injury , age and time post injury.

Methods: The bone mineral density (BMD) was measured in thirty patients who sustained Spinal Cord Injury before 1-15 years; there were twenty five males and five females. Bone mineral density was measured by dual energy x-ray absorptiometry in the lumbar Spine and femoral neck. -Patients were diagnosed to have osteoporosis according to world health organization criteria and their fracture risk was described from this score using published data. -Their spinal injuries were classified according to American Spinal Injury Association (ASIA) criteria, ranging from A-D.

Results: Bone loss indicated by low bone mineral density showed a regional pattern affecting mainly the femoral region, relatively preserving the lumbar spine. Abnormal bone mineral density values were detected in 81% of subjects. -A positive correlation was noticed between the time following the injury and the degree of osteoporosis. -Individuals with complete injuries showed lower bone mineral density values than those with incomplete lesions. -No significant correlation was found regarding their age and gender.

Conclusion: Spinal cord Injury subjects are at high risk of developing osteoporosis which can lead to significant morbidity, particularly lower extremity fractures. -Accurate diagnosis can be easily done by measuring dual-energy radiographic absorptiometry (DEXA) scan as early as possible following Spinal Cord Injury.

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Biologic Experience for Rheumatoid Arthritis in Rheumatology Unit at King Hussein Medical Center

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Objectives: To define the outcome of patients suffering Rheumatoid Arthritis treated with biologic agents.

Methods: This is a retrospective study held at rheumatology unit in King Hussein Center where patients diagnosed as rheumatoid arthritis and fulfilled the American College of Rheumatology criteria and they did not respond to Disease Modifying Agents (DMARDS), according to our local protocol they were started on biologic agent. All patients had a baseline DAS28 score and follow up on regular basis.

Results: A total number of twenty eight patients, female: male were 3:1, age range18-73 with median age 55 year. Twenty one (70%) were started on Infliximab; 30% require either decrease interval between infusions or dose escalations. Two patients were shifted to Enbrel and six were shifted to Rituximab. The rest of patients were started on Enbrel. Average baseline DAS 28 Score was 6.1 and 6 months later was 1.9. All patients report unscheduled visit to the clinic and several admissions to the hospital before biologic therapy commencement in comparison to no admissions were not reported in all patients regarding disease flare afterwards.. There was no increase incidence of infection among these patients.

Conclusion: Biologic agents usage is justifiable when comparing disease outcome and improvement in functional performance versus expense of hospital admissions and patient's disabilities

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Clinical Presentation of Joint Hypermobility Syndrome of The Knee in Military Personnel

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Objectives: To describe the clinical presentation and complications of hyper-mobile syndrome of the knee in military personnel.

Methods: A prospective, case- controlled descriptive study carried out at Prince Hashim Ben Al-Hussein Hospital; over a period of 1 year (from August 2008 to July 2009).One hundred and twenty patients who attended the rheumatology\ rehabilitation clinic were enrolled. All patients fulfilled the Brighton diagnostic criteria of benign hypermobility syndrome and have a Beighton score of 4 or more including the knees. Complete patient evaluation was performed including history, physical examination, laboratory and radiographic examination.

Results: One hundred and twenty patients (102 males and 18 females) with male to female ratio (15:1). Mean age was 26 (range: 17-35 years) were enrolled. The commonest presenting complaint was bilateral knee pain (72 patients 60%) followed by unilateral knee pain (35 patients 29%), while pain and swelling was noted in ten patients(8%) and joint locking was observed in three patients(2.5%).The predominant radiographic abnormality was premature osteoarthritis in thirty patients (25%) followed by ligament injury in five patients (4%),while bone bruising and contusion was documented in tghre patients(2.5%) and stress fracture in two patients (1.7%). Seven (5.8%) and five (4%) patients tested positive for rheumatoid and anti nuclear antibodies respectively.

Conclusion: In this age group, and in the military service, hypermobility of the knee may predispose to early osteoarthritis,

ligament or tendon injury, bone contusion and stress fracture presumably due to repetitive stress and prolonged standing in static posture .Physicians of different specialties are largely unaware of the condition leading to misdiagnosis resulting in patients' more suffering, anxiety, depression and increased absenteeism from work.

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Effect of Exercise Intervention in Patients With Osteoarthritis of the Knee.

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Objectives: To collect pilot data on the effect of independent knee exercise program and gymnasium based exercise program offered to people with osteoarthritis of the knee
Methods: A randomized pilot clinical study was conducted .Subjects both male (ten) and female (ten) aged from 52 to76 years of age with a diagnosis of osteoarthritis of the knee were selected. Two intervention groups were compared. Both received treatment including independent knee exercise program and gymnasium based exercise program. The main outcome measures were pain, balance, strength and range of motion.
Results: Twenty patients were randomly allocated to either the independent knee exercise program or gymnasium based exercise program. There were no differences between groups for any of these variables, at variable mean (SD) age of subjects 65.33 (6.08) years, disease duration 7.58 (6.16) years, height 171.08 (9.85) cm, weight 77.56 (14.48) kg. All subjects completed the trial. After 6/52 of exercise intervention there was a significant improvement ($p<0.0001$) in both groups but no significant differences were found between the groups. These results suggest that strengthening exercise intervention can improve strength, range of motion, balance and pain.
Conclusion: These pilot results suggest that exercise may play a role in improving pain, balance, range of motion and strength in patients with osteoarthritis of the knee.

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Thyroid Abnormalities in Rheumatological Diseases

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Aim: To assess the frequency of thyroid dysfunction among patients with rheumatological diseases.
Method: A total number of 178 patients seen in Rheumatology and Endocrine clinics at KHMC in the period Jan. 2009-Jan.2010 who were known to have rheumatological diseases were screened for thyroid disease (clinical or subclinical hyper/hypothyroid) regardless of their symptoms.
Result: A total number of one hundred and sixty nine patients, Female: male ratio was 6:1 with median age of 30.3 years. Fifty eight patients found to have thyroid function abnormalities; the over all prevalence of thyroid dysfunction was 34.3%. This prevalence was different among different rheumatologic diseases as follow: One hundred and seven patients with SLE: twenty seven cases (25.2%) were biochemically hypothyroid, and three cases (2.8%) was biochemically hyperthyroid.
Forty five Rheumatoid arthritis patient: thirteen cases (28.8%) were biochemically hypothyroid, and three cases (6.6%) were hyperthyroid. Seven cases of Scleroderma: five cases (71.4%) were biochemically hypothyroid, and zero case was hyperthyroid. Six cases of Vasculitis: two cases (33.3%) were biochemically hypothyroid, and one case (16.6%) were hyperthyroid. Four patients with Dermatomyositis: three cases (75%) were biochemically hypothyroid, and one case was hyperthyroid.
Conclusion: Thyroid dysfunction is common among patients with autoimmune diseases and often is sub clinical in nature. Screening should be regularly performed in all patients with rheumatologic diseases for proper early detection and management.

5th International Conference of The
Royal Medical Services

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New Entities of Lymphoma Classification

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This talk will explain the changes in the new WHO classification of Diffuse Large B Cell Lymphoma (DLBCL). The new entities introduced in the new classification will be illustrated and their diagnostic features demonstrated. These include:
1. T cell/histiocyte rich large B cell lymphoma. 2. Primary cutaneous DLBCL, leg type. 3. EBV positive DLBCL of the elderly. 4. DLBCL associated with chronic inflammation. 5. Lymphomatoid Granulomatosis. 6. Primary mediastinal (thymic) large B cell lymphoma. 7. Plasmablastic lymphoma. 8. Large B cell lymphoma arising in HHV8-associated multicentric Castleman's disease. 9. Primary effusion lymphoma. 10. Intravascular large B cell lymphoma. 11. ALK positive large B cell lymphoma. 12. Primary DLBCL of the CNS. 13. B-cell lymphoma, unclassifiable, with features intermediate between DLBCL and Burkitt lymphoma. 14. B-cell lymphoma, unclassifiable, with features intermediate between DLBCL and classical Hodgkin lymphoma.

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Individualised Treatment in Breast Cancer: A Concept Based on Histopathology

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In the UK, mortality from breast cancer is declining. This is attributed to the introduction of breast screening and better management, particularly the use of chemotherapy, radiotherapy, hormone therapy and other targeted therapies like Herceptin. This better management is essentially based on better classification of breast cancers. This classification has gone through 3 phases. The first, traditional, phase was based on light microscopic examination of haematoxylin and eosin stained sections. This has resulted in separating in situ from invasive cancers, and sub-classifying each into ductal, lobular and others; with some subtypes being managed differently (for example low and high grade DCIS). The second phase of classification came with the discovery of oestrogen receptors (ER) and the introduction of immunohistochemistry for ER and HER2. This led to targeting hormonal therapy to patients with ER positive tumours and Herceptin and Lapatinib to those with HER2 strongly positive tumours. The third, and most recent, phase of classification is based on molecular studies. This has identified a 'new' group of basal-like breast cancers, in addition to 3 other previously identified groups: luminal and normal-like (ER positive), and HER2 positive tumours. Around 12% of breast cancers are basal-like. They are characterized by being mostly triple (ER, PR and HER2) negative and express at least one of the basal cell markers (e.g. cytokeratin 5/6, 14). Histologically, they may show medullary features, large central scar, geographical tumour necrosis, spindle cell or squamous metaplasia. There is usually high nuclear cytoplasmic ration and high mitotic activity. Clinically, they are aggressive and disseminates via the blood stream. Chemotherapy is the only line of adjuvant therapy available, but more targeted therapies are being hoped for. Molecular techniques have also been developed to identify tumours with specific prognostic 'signature' and to predict benefit from chemotherapy, and the possibilities of local recurrence or distant metastasis. The reliability of some of these molecular tests has not been fully confirmed, and histopathology remains the main tool used for classifying breast carcinomas into categories that can guide the management of the disease. The aim is to provide a more refined diagnosis that would help in giving individual patients the most effective and least toxic treatment for their disease

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Unusual Reactive Lymphadenopathy

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This talk will describe the various patterns of reaction of lymph nodes; these include: Follicular (B cell region), Parafollicular (T cell region) and sinus patterns of reactions. Examples of these reactive patterns together with the cell types involved will

be illustrated. The rest of the talk will be concentrated on lymph node's features which are found in various specific types of reactions (i.e. specific lymphadenitis). These will include the following entities: 1. Progressive Transformation of Germinal Centres. 2. Follicular Lymphoma in situ. 3. Mantle Cell Lymphoma in situ. 4. Castleman's Disease. 5. Rosai Dorfman Syndrome. 6. Kikuchi's Disease/ Lymphadenitis. 7. Some specific reactions to infections, such as EBV and Toxoplasmosis.

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Intracystic Papillary Lesions of the Breast

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Intracystic papillary lesions comprise around 5% of all breast lesions. They can be single or multiple, with multiple lesions associated with an increased risk of malignancy. The lesions could be benign, border line or malignant. Distinguishing the 3 types may be difficult particularly in core biopsies. Immunoperoxidase stains for cytokeratin 5/6 may be needed to establish the diagnosis. When seen in a core biopsy, excision is usually advised, particularly if there are atypical cells present. Cases with no atypia that have been sampled thoroughly, e.g. by mammotome, can be followed up. Most intracystic papillary lesions are benign and consist of fibrous tissue fronds covered by 2 layers of epithelial and myoepithelial cells. When more than 2 layers of epithelial cells are present, this could represent:

- Usual type hyperplasia (in which case a stain for CK5/6 will show a mosaic pattern of positive and negative cells)
- Atypical hyperplasia (where atypical cells are present but occupy an area less than 3mm across)
- Focal DCIS (when the atypical/ neoplastic cells occupy more than 3mm)
- Intracystic papillary carcinoma (where all the cells within the lesion are malignant, CK5/6 negative)
- If papillary fronds are not seen, but are represented by small islands of fibrous tissue: the lesion is called Solid intracystic papillary carcinoma

It is possible that some 'intracystic' papillary carcinomas, represent low grade invasive cancers, and sentinel lymph node biopsy may be advisable

Hall H Session 4
Pathology

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Pathology Slide Seminar entitled (Five Interesting Breast Cases)

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A pathology slide seminar entitled 'Five interesting breast cases'. Microscopes will be used to review the cases before discussing them in the seminar.

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Slide Seminar on Lymphoma

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This is a slide seminar. A group of interesting lymph node cases will be presented and discussed. H&E and immunostained sections will be available for examination, if microscopes are available in the conference rooms.

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Fibroosseus Pseudotumour of the Digits: A Clinicopathological Study of 44 New Cases in USA

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Objectives: Myositis ossificans is a reactive zonal fibroosseous lesion involving skeletal muscle of the extremities and trunk in young patients. Fibroosseus pseudotumours of the digits (FOPD)is a similar lesion of the superficial digits, which is reportedly less well organized. We report all cases of FOPD from 1970 to the present and add to the existing older FOPD literature .
Methods: 44 cases coded as "FOPD" or "myositis ossificans of the hands and feet" were retrieved from the Soft Tissue

pathology department at the Armed Forces Institute of Pathology (AFIP) and analyzed. Slides and radiological images were reviewed.
Results: The lesions are separate from bone with no evidence of cortical erosion. Few cases had history of trauma, several patients had occupations that required continual work with their hands, as pianists, cashier, etc…). Patient ages ranged from 10 to 64 years with a mean and median of 40 years. There were18 males and 26 females.
Proximal phalanx in the finger was the most common location. Tumor sizes range from 0.2 to 5.0 centimeters, with a mean of 2.3 and a median of 1.5 centimeters.
Morphologically, all cases were dermal and/or subcutaneous. Half the cases had zonal or partial zonal organization, the remaining half were disorganized. All cases had focal fasciitis-like stroma , less mature interconnected woven bone (osteoid) was centrally present whereas more mature, mineralized woven bone presented later or peripherally.
Conclusion: FOPD is a benign subcutaneous/ dermal osseous and myofibroblastic lesion, more cases than previously recognized have an organized growth pattern, similar to myositis ossificans and should not be confused with malignancy. Local excision is adequate.

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Efficacy of Broncho -Alveolar Lavage and Bronchial Brush Cytology in Diagnosing Lung Cancers

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Objectives: To compare the diagnostic efficacy of broncho-alveolar lavage (BAL) and bronchial brush (BB) in diagnosing lung cancer, taking bronchial biopsy as the "Gold Standard" diagnostic test.
Methods: Between April 2004 and April 2008, 196 cases were selected where flexible bronchoscopic samples of broncho-alveolar lavage (BAL) and bronchial brush (BB) cytology as well as bronchial biopsy were taken and processed as per standard procedure s of cytology and histology
Results: Sensitivity of BB was 87.3%, while that of BAL WAS 39.4%. Specifity of BB and BAL was 97.6% and 89.6%, respectively. BB was better than BAL in morphological typing of lung cancer.
Conclusion: Bronchial brushing is a much superior technique in the diagnosis and morphological typing of lung cancers.

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HIT-Syndrome (Heparin - Induced Thrombocytopenia) by Positive Diamed Assay , Based on a Scoring System (4Ts)

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Objectives: Heparin - induced thrombocytopenia is a serious clinico-pathologic syndrome, as a complication of heparin therapy occurring in up to 5% of patients receiving heparin for more than 5 days, or less if the patient had recently been exposed to heparin, the frequency of HIT is higher in surgical patients (2.7 -5.0 %) than in medical patients. The aim of this study is to diagnose and differentiate the patients with HIT from those with other causes of the thrombocytopenia, based on a scoring system (4 Ts) , on all positive Diamed method. This study was, therefore undertaken with the objective of differentiating and determining the other possible causes of thrombocytopenia. This review addresses the clinical and biological strategy to be applied for the diagnosis of heparin-induced thrombocytopenia
Methods: We preformed a pretest probability assessment based on the retrospective review of 494 test were done at Sydney Cancer Center-Australia , over a 5 years period (2002-2006) for the patients suspected of HIT by Diamed mainly and functional assay (SRA).
Results: We found a false positive rate in our patients of around 62% (13/21), only patients with a high pretest probability and with positive Diamed were confirmed

to have HIT by SRA. Indeed, arguably the pretest probability assessment is as useful as Diamed result. The combination of clinical probability and testing for PF4 heparin antibodies (HIT IgG Abs.) has a high diagnostic sensitivity.
Conclusion: A high pretest probability for HIT, seems to be good in clinical practice for clinicians as an additional confirmatory test for HIT (high positive predictive value), especially when functional assays (serotonin release assay) are not available. When using heparin, the risk of HIT must be borne in mind!, there- fore venous and arterial thromboses are frequent explaining why substituting heparin with a potent alternative anticoagulant (danaparoid, lepirudin, or argatroban) is necessary in every affected patient to prevent the morbidity and mortality of heparin-induced thrombocytopenia (HIT). Recent studies have demonstrated the usefulness of combining a pretest clinical score (4Ts) and immunoassays to diagnose heparin-induced thrombocytopenia.

Hall I Session 1
Ophthalmology & Dermatology

148
Mitomycin C versus Conjunctival Limbal Autograft after Pterygium Excision: A Study Series from Brighton to Amman

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Objectives: to compare the recurrence rate and complications after pterygium excision using mitomycin C and conjucntival limbal autograft as adjunct treatment options.
Methods: 22 patients who underwent pterygium excision in Amman Jordan and Brighton Uk were studied.Half of these patients recieved 0.02%mitomycin C and the other half underwent limbal autograft transplantation.Recurrence rate and complications were assessed in both groups over one year period.
Results: There was one recurrence in the limbal autograft group(1%) as opposed to 3 recurrences in the MMC group(3%).complications in the form of dellen,granulomas and restricted motility were reported but no other visually significant complications were encountered in either group.
Conclusion: Mitomycin C and conjunctival limbal autografts are both effective and safe adjuvants for pterygium treatment. The choice should be carefully made taking in consideration the patient's risk factors and the surgeon's experience.

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Lensectomy for Bilateral Congenital Cataract Patients: Experience at King Hussein Medical Center

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Objectives: Cataract is the most important cause of treatable childhood blindness. The management of congenital cataract is very different to the treatment of a routine age-related cataract as it has many considerations and carries many complications like increased intraocular pressure, strabismus, and nystagmus. This article is to describe the postoperative complications after pediatric cataract surgery.
Methods: A retrospective study was done at King Hussein Medical Center in a 6-year period (between 2003 & 2009) in which we assessed (76) eyes of (38) children between the ages of 12 days and 2 years who had cataract surgery for the treatment of uncomplicated cataract. All the patients had lensectomy for both eyes by clear corneal phaco-style technique lens aspiration, posterior capsulorrhexis, and anterior vitrectomy without intraocular lens implantation. The presence of strabismus, nystagmus, glaucoma & other complications were assessed & evaluated. The average follow up period was 37.5 months.
Results: Visual acuity could not be estimated in most of the children but refraction of these patients ranged between (+11.00 to +25.00). The most frequent postoperative complication was strabismus in fifteen patients (39%), in addition to four patients already diagnosed with strabismus preoperatively. The second most frequent complication was nystagmus. Six patients (16%) developed new onset Nystagmus, in addition to fourteen patients already had nystagmus at presentation. Chronic postoperative glaucoma developed in 4 eyes of 3 children (5%), one patient had bilateral glaucoma treated medically and two dark skinned patients had refractory glaucoma to topical medications which necessitated surgical treatment later on. Only one patient developed bilateral after cataract that necessitated surgery.
Conclusion: Management of congenital cataract can make a difference if it can be delivered effectively and in time. The results suggest that clear corneal phaco-style technique lens aspiration, posterior capsulorrhexis, and anterior vitrectomy is a desirable procedure in children less than 2 years of age with good results. Routine follow up is necessary to identify possible serious complications like glaucoma. Nystagmus & strabismus are also reported as correctable complications.

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Atropine Penalization versus Occlusion Therapy in Amblyopia

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Objectives: To evaluate the efficacy of atropine penalization in the treatment of amblyopia in comparison with conventional patching.
Methods: A prospective randomized study that was conducted at King Hussein Medical Center of the Royal Medical Services during the period between January 2007 and January 2009. One hundred patients were enrolled in the study. Patients were divided into two groups of 50 subjects each. The first group was treated by atropine penalization and the second by conventional patching. Inclusion criteria included age between 6 and 12 years, visual acuity between 6/12 and 6/60 and anisometropia as the only explanation for poor vision. Snellen's visual was tested 1 month, 3 months, 6 months and one year after treatment.
Results: Mean age of patients was 8.9 years with a male to female ratio of 0.9:1. For the group treated by atropine penalization, visual acuity improved by 1.1 Snellen's lines after 1 month, 1.8 lines after 3 months and 2.3 lines after 6 months and 1 year. Patching showed faster recovery after 1 month with improvement of vision by 1.9 Snellen's lines after 1 month. The results were almost the same after 6 months and 1 year with improvement of 2.2 and 2.3 lines respectively.
Conclusion: Atropine penalization is as effective as patching in the treatment of anisometropic amblyopia though the speed of recovery is slower.

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Ophthalmia Nodosa Secondary to Goliath Bird-eating Tarantula Hairs

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Objectives: To report a case of right ophthalmia nodosa in a 20 years old male patient due to intracorneal Goliath bird - eating tarantula hairs.
Methods: This gentle young man was referred to our department on 14/09/2009 complaining of right eye discomfort and redness for one month duration after he was hit with a glove, which had been used to handle tarantula-spider, on the right side of his face.
Results: On clinical examination there were few scattered right intracorneal tarantula hairs, with a granulometous panuveitis. He was started on topical steroids which relieved his symptoms, but didn't cure his condition.
Conclusion: Tarantulas are members of the theraphosidae family; they are large in size and covered with a layer of velvety hairs. Recently they have become more fashionable as pets in western countries

as many of them have less potent venom, however their hairs can cause dermatological, respiratory and ocular irritation which could be devastating.

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The Use of Visual Evoked Potential in Comparison with Fogging Technique in Patients with Functional Visual Loss

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Objectives: To investigate whether pattern reversal visual evoked potential is effective in detecting patients with functional visual loss.
Methods: A prospective study that was conducted at King Hussein Medical Center during the period between June 2007 and June 2009. Sixty seven eyes of unexplained decreased visual acuity were enrolled in the study. Exclusion criteria included patients with best corrected visual acuity of less than 6/12 and patients younger than 12 years old. Ocular examination included Snellen's best corrected visual acuity, slit lamp anterior segment examination, refraction, and posterior segment examination after mydriasis via +78 lens. Nine steps pattern reversal visual evoked potential using ISCEV recommendations were used. Different patterns were used ranging from 5 minutes to 120 minutes arc. Malingerer test by fogging the sound eye was done for all patients. P-value was used to determine statistical significance.
Results: Fives eye had visual acuity of no light perception and 49 nine eyes had visual acuity of less than 6/60. Four patients with no light perception vision showed a response with visual evoked potential testing while only two of them were detected by fogging technique (p-value < 0.05). Pattern reversal visual evoked potential testing was also more effective in detecting functional visual loss than fogging technique in eyes with visual acuity between 6/60 and 6/12 (p-value < 0.01). In patients with visual acuity of between light perception and 6/60, pattern reversal visual evoked potential was more effective than fogging technique but did not show statistical significance.
Conclusion: Pattern reversal visual evoked potential testing is more effective than fogging technique in detecting patients with functional visual loss.

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Effect of Phacoemulsification Surgery on Intraocular Pressure

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Objectives: To evaluate the effect of phacoemulsification cataract surgery on intraocular pressure.
Methods: A prospective study that was conducted at King Hussein Medical Center during the period between July 2008 and June 2009. Three hundred and fifty two patients undergoing phacoemulsification surgery were enrolled in the study. Ophthalmological examination included best corrected visual acuity, slit lamp examination, posterior segment examination by +78 lens and measurement of intraocular pressure by Goldmann's applanation tonometer. Intraocular pressure was measured one day, one week and one month after surgery. Patients were divided into three groups: those with normal intraocular pressure, ocular hypertensive and glaucoma patients. Intraocular pressure was compared preoperatively and postoperatively. P-value was used for statistical analysis and was considered significant if ≤ 0.05.
Results: The mean age of patients was 61.3 years (range 27.3 years to 82.5 years) with males slightly outnumbering females 1.2:1. Three hundred and four patients (86.4%) had normal intraocular pressure (group 1), 31 (8.8%) patients had ocular hypertension (group 2), and 17 patients (4.4%) had glaucoma (group 3). Mean intraocular pressure for group 1 was 15.8 mmHg preoperatively and 11.6 mmHg first day post surgery, 11.3 mmHg after a week and 11.5 mmHg after a month. Results for group 2 were 26.3 mmHg (before surgery), 20.3 mmHg (one day post surgery), 21.4 mmHg (one week), and 20.9 mmHg (one month). Glaucoma patients showed 20% reduction of their intraocular pressure after surgery. There was no statistically significant difference between the three groups.
Conclusion: Phacoemulsification surgery is effective in reducing intraocular pressure in normal patients, ocular hypertensive and glaucoma patients.

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Complications Encountered in Laser-assisted in situ Keratomileusis at King Hussein Medical Center during 5 years

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Objectives: To report complications encountered in laser-assisted in situ keratomileusis during 5 years at King Hussein Medical Center
Methods:1000 patients underwent laser-assisted in situ keratomileusis operation at King Hussein Medical Center between 2005 and 2010, complications that has been reported in different world centers encountered also at our center and managed
Results: Patient's age was between 28 and 48 years (mean 32 years), two patients had free cap, two patients button hole, two patients step, one patient decentered flap
Conclusion: Laser-assisted in situ keratomileusis operation has complications world wide and within the range in our center and managed successfully

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An Epidemiological Investigation and Characterization of Acute Kerato-Conjunctivitis: Report of an Outbreak

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Objectives: To describe an outbreak of acute conjunctivitis which occurred among newly recruited students at Public Security training School in Al-Zarqa City -Jordan
Methods: A total of 117 students were interviewed and referred to the Ophthalmologic clinic at Prince Hashem Military Hospital in Al Zarqa on October 26th 2009 .A specially-designed abstract record form was used to investigate the outbreak.
Results: All cases are males with age range between18-24 years (mean age 21years), maximum number of cases were seen at 2days of onset of symptoms. All 117 had red eye, 105 cases (89.8%) had pain, 101 cases (86.3%) had foreign body sensation and 102 (87.5%) had eye discharge. Bilateral involvement was reported in 86 cases (73.5%) and unilateral involvement in 31 (26.5%). About 5 patients (4.3%) had corneal involvement and 24 patients (20%)of the cases had associated fever and periauricular lymphadenopathy.
Conclusion: Adequate personal hygiene, hand cleanliness, and avoiding overcrowding in barracks are needed to minimize the occurrence of similar outbreaks in the future

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Drugs Causing Fixed Drug Eruptions: A Clinical Study.

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Objectives: To identify the causative drugs of fixed drug eruptions in a Jordanian sample, and to assess drug-related distribution of fixed drug eruptions.
Methods: This study was conducted at Prince Rashid Hospital and Queen Alia Hospital during the period between January 2008 and June 2009. A total of sixty four patients who attended the dermatology clinic with fixed drug eruption were asked about the offending drug.
Results: Trimethoprim-sulphamethoxazole was the causative agent in forty three cases (70.3%) of fixed drug eruptions, followed

by furosemide in five cases (7.8%), and tetracyclines in four cases (6.3%). Other causative drugs included diclofenac sodium in three patients (4.7%), ciprofloxacin in three patients (4.7%), ibuprofen in two patients (3.1%), metronidazole in two patients (3.1%), norfloxacin in one patient (1.6%), and aspirin in one patient (1.6%). The glans penis of the male genitalia was the most commonly involved site (58.0%), followed by the extremities (39.0%), the trunk (20.3%), and the lips (6.3%). The female genitalia (clitoris) were involved only in two patients (3.1%). Only one patient (1.6%) developed a generalized bullous drug reaction.

Conclusion:

Trimethoprim- sulphamethoxazole was the most common cause of fixed drug eruption. Ciprofloxacin is increasingly reported as a causative agent for fixed drug eruption.

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Neutrophilic Dermatosis of the Dorsal Hands: An Evolving Disease Concept with Paraneoplastic Significance

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Objectives: To describe six patients of Neutrophilic dermatosis of the dorsal hands; the distinctive clinical presentation, histopathological characteristics, and a possible association with malignancies and systemic inflammatory conditions will be illustrated.

Methods: Patients with clinical pictures of Neutrophilic dermatosis of the dorsal hands were included in the study. Demographic data, detailed history and physical examination were done. Basic laboratory investigations and skin biopsies were performed. Additional investigations were done if indicated to look for associated disorders.

Results: Four of the patients were women, two were men. The mean age was 62, range 43–78 years. Skin lesions were present on the dorsal part of the hands in all patients. Fever was documented in five patients. Neutrophilic leukocytosis was reported in 4 patients and elevated erythrocyte sedimentation rate in 3. Skin biopsy was performed in all patients and revealed typical features for Neutrophilic dermatosis of the dorsal hands. Associated conditions were found in 5 patients, three had associated malignancies (CNS tumor in a case of neurofibromatosis type-1, lung, and breast), one had rheumatoid arthritis, and one had myelodysplasia in transition to leukemia. The cutaneous symptoms preceded the finding of an occult lung carcinoma. Excellent response to oral steroids was observed in cases of non-malignant association.

Conclusion: Neutrophilic dermatosis of the dorsal hands is a recently described clinical entity and an evolving disease concept. The clinical presentation is distinctive and prompt diagnosis may prevent unnecessary medical or surgical therapy and may lead to the earlier diagnosis and treatment of an associated malignancy or other systemic disorder. We emphasize the significant association of this rare entity with solid tumors.

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Zinc Deficiency in Atopic Dermatitis Patients, Association, & Replacement Results

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Objectives: To determine the incidence zinc deficiency in atopic dermatitis patient among pediatric population in north Jordan and to highlight the importance of zinc replacement in ameliorating symptom and sign of atopic dermatitis.

Methods: A total of eighty children, infants, neonates with atopic dermatitis studied during period of February 2009 to January 2010 revealed significant association between zinc deficiency and atopic dermatitis in pediatric population,matched with control group (eighty children) with out atopic dermatitis .

Results: Atopic dermatitis affects 10-20% of children and 10-15 of adults in industrialized countries , the study showed that 18.75 % of our patients with atopic dermatitis have zinc level below normal and only 6% of the control group show low zinc level and zinc replacement therapy for those patient for one year showed significant improvement in their symptoms and sign.

Conclusion: Atopic dermatitis is one of the skin dermatosis which has significant association with zinc deficiency, investigation of those patients are indicated since replacement results in improvement.

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Control of Hypertension in Patients with Type 2 Diabetes who have Diabetic Retinopathy

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Objectives: To evaluate the level of control of blood pressure among patients with hypertension and type-2 diabetes who are attending the diabetic eye clinic

Methods: Two hundred patients with type 2 Diabetes and hypertension, who attended the Diabetic Eye Clinic at the out-patient Department of Queen Alia Military Hospital, who are maintained on at least one anti-hypertensive medication between the 1st of July and the 1st of October 2007, were recruited for this study. All patients were interviewed, demographic data were collected and blood pressure was measured for every patient according to British Hypertensive Society Guidelines

Results: Out of 200 patients, 110 were males and 90 were females. About (63%) were in the age group (50-70 yrs). The target blood pressure was achieved only in (26%) according to British Hypertensive Society Guidelines, while (74%) were having blood pressure above 130/80.

Conclusion: High percentage of patients was found to have poor blood pressure control, blood pressure control is a goal to be achieved in Diabetic patients with retinopathy.

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Advances in Minimally Invasive Surgery in Children

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Since the first video-laparoscopic cholecystectomy was performed by Phillipe Mouret in France 1987, the field of minimally invasive surgery has seen tremendous growth. During the 1990's other abdominal surgical applications of laparoscopy began to emerge, and there saw rapid development and acceptance of this revolutionary new form of surgical therapy.

As the 21st century advances, laparoscopic surgery is completely changing the outlook of surgical operations and has gradually phased out general surgery.

Although the benefits over open surgery are sizeable, Laparoscopic surgery presents significant limitations such as a loss of the sense of depth in the abdominal cavity, tactile sensation and resistance, as well as loss of natural hand-eye coordination, manual dexterity and motion limitations. Although skilled surgeons learn to adapt to these differences over time an integral benefit for the development of surgical robots is the possibility of eliminating such limitations.

The first robot widely used in laparoscopic surgery was AESOP, the Automated Endoscopic System for Optimal Positioning (AESOP) Robotic System. The first FDA approved robot available in the United States was the DaVinci® system which was released by Intuitive Surgical Inc. (Sunnyvale, CA) on July 11, 2000. The surgeon's hand movements are now electronically translated to end effectors on the laparoscopic instruments which increase instrument flexibility and dexterity allowing for much easier suturing and knot tying. The robotic computer can now eliminate hand tremor as well as providing motion scaling allowing for finer, more detailed work. Somewhat disturbingly, the DaVinci robot fully separates the surgeon from physical contact with the patient.

It was not until 2002 that first total robotic-

assisted laparoscopic colectomy was reported in which actual tissue dissection and mobilization were performed using robot-assisted technology.
Fundamentally, the primary objectives of robotic-assisted surgery are involved with restoring three-dimensional optics, developing intuitive controls and minimising operating time whilst at the same time transforming the procedure into an ergonomically comfortable experience for the surgeon.
The evolution of surgery over the past two decades has been one towards minimizing the incision no matter the complexity of the operation undertaken. This, however, begs the question: "How can minimally invasive surgery become even more minimal
Natural Orifice Transluminal Endoscopic surgery (NOTES) is a newly emerging surgical technique that involves the intentional puncture of one of the viscera (e.g., stomach, rectum, urinary bladder) with an endoscope to access the abdominal cavity through a natural bodily orifice such as the mouth, anus and vagina, avoiding any abdominal incision.
NOTES has just recently entered the clinical arena, and may be seen to be the next frontier in minimally invasive surgery yet a number of questions have been raised: 'Is there a true clinical advantage to avoiding incisions in the abdominal wall?, 'Can the visceral wall be closed safely and reliably?,
These techniques have the potential to become an important component of surgical practice yet collaboration with industry is critical to the development of effective and novel advanced technologies and instruments capable of meeting the demanding and specific requirements of such a technique. Although still in its infancy, NOTES has the potential to further revolutionize the field of abdominal surgery.
Already, one research group has commented on the constraints on visual feedback and dexterity in NOTES and has developed small mini-robots which are inserted via a small gastrostomy into the peritoneal cavity and are controlled wirelessly. In June 2007 Scientists at the Technion University unveiled a micro-robot of only 1 mm in diameter that has the capacity to move within the human bloodstream.
As we look to the future we must take a step back and ask ourselves how such advancements in surgical technique develop. Are such advancements bounded solely by the development of new instruments within industry, or by a lack of innovation on the part of the surgeon? Or, furthermore, is it a collaboration of the two that is needed for true progress? Whilst it may be hard to pinpoint such a notion presently, I suppose we will just have to wait and see.

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Thoracoscopic Surgery in Children

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Minimally invasive thoracoscopic surgery offers several options in diagnosis and surgical treatment in the field of pediatric surgery. Indications. advantages,disadvantages and limitations of thoracoscopic surgery in children will be discussed as well as some technical issues. Our surgical experience and assessment of the clinical outcomes and problems encountered during thoracoscopic surgery in neonates and children. The morbidity or mortality associated with the thoracoscopic surgical procedures will be highlighted.
Videos of thoracoscopic surgical procedures on congenital anomalies i.e Oesophageal atresia and trachea-oesophageal fistula (TOF) and Diaphragmatic hernia as well as other thoracoscopic procedures in children will be shown and discussed .
CONCLUSIONS: Thoracoscopy is a useful diagnostic and therapeutic tool for both infants and children. Various thoracoscopic complex procedures have been performed both safely and effectively.

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Congenital Lung Malformations: To Operate or not?

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The antenatal ultrasound finding of a congenital thoracic malformation (CTM) leads to anxiety in the parents and uncertainty as to the optimal management. Increasingly, the presence of these lesion is is being confirmed by magnetic resonance imaging; although the quality of the images is enhanced, diagnostic

uncertainty usually remains. The antenatal spectrum of CTM includes congenital cystic adenomatoid malformation, sequestration, congenital lobar emphysema, enteric and bronchogenic cysts, and bronchial atresia. Most lesions require no antenatal intervention, and shrink substantially in the third trimester, but if fetal hydrops develops, then antenatal intervention is required, occasionally medical but more usually surgical, because mortality is otherwise high. If the baby is symptomatic in the newborn period, and unresponsive to medical management, then some form of invasive (usually surgical) intervention is clearly required. The asymptomatic baby presents a therapeutic dilemma. Advocates of early surgery point to the complications of CTM, which include infection, pneumothorax, bleeding and malignant transformation. Those who are proponents of conservative management retort that some CTMs disappear postnatally, and that the complication rate is unknown; many children appear never to need surgery. Furthermore, there is clear cut evidence that excision of a CTM does not totally eliminate the risk of a subsequent malignancy. It is clear that, both antenatally and postnanatally, counselling of the family on a case by case basis is needed. The limitations of present evidence should be stressed. Different families will make different decisions about post-natal surgery in an asymptomatic baby. If surgery is performed, morbidity is low, particularly with a video-assisted thoracoscopic (VATS) procedure. In either case, follow up is indicated, with careful data collection, so that we can develop an information base to inform the decisions of future families.

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Lap Assisted Endorectal Pull-Through For Hirschsprung Disease

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Objectives: We would like to present our initial experience in laparoscopic assisted endo-rectal pull through (LAERPT) for the treatment of Hirsch Sprung disease in the paediatric age group.
Methods: Between May 2008 and October 2009, eight infants with classic Hirsch Sprung disease aged 3 to 9 months were treated with primary LAERPT at King Hussein Medical Center. The patients were followed up for 3 - 17 months.
Results: There were no intraoperative complications and none needed to be converted to open procedure. All patients had rapid recovery. Milk feeding was started on the 1st postoperative day and patients passed motion on the second or third postoperative day. The average hospital stay was four days were the patients were discharged on the third postoperative day. The scars had cosmetic appearence. One infant developed anal stricture which required anal dilatations. The overall functional outcome was good in all cases with no soiling, stool incontinence or constipation.
Conclusion: This procedure is less invasive than open surgery. It reduces perioperative complications. The technique can be learned easily and a one-stage pull-through avoids the additional anesthesia, surgery and complications of a first step colostomy. Furthermore, blood loss during surgery is minimal and the technique is safe and efficient.

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Nephrectomy: Indications in 119 Childrens

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Objectives: To review the indications for nephrectomy between January1997 through December 2009, at King Hussein Medical Center, pediatric surgery division.
Methods: Medical records of 119 patients whom underwent any form of nephrectomy were reviewed. The patients included 67 males and 52 females. The age ranged from two months to 13 years. All the patients whom underwent simple

nephrectomy, nephroureterectomy, radical and/or nephron-sparing surgery during the thirteen years period, were included in the study and were analyzed regarding sex, age, indication for nephrectomy, morbidity and mortality. The indications for nephrectomy were divided into benign and malignant conditions. These children were followed up regularly for assessment of their kidney function.

Results: 49 patients (41.2%) underwent nephrectomies for malignant conditions and 70 patients (58.8%) for benign etiology. In the benign group 23.5% of patients had kidneys removed due to complicated vesicoureteric reflux (VUR) or stenosis, 1.6% for urinary tract stones or infection .Other conditions in this group included, ureterocele and posterior urethral valve. VUR and ureterocele necessitating nephrectomy were predominant in female patients, while pelviureteric junction obstruction was predominant in males. Forty-nine patients (41.2%) had nephrectomy for malignant conditions that included Wilm's tumor and neuroblastoma. There were no major complications or mortalities related to the surgical procedure.

Conclusion: In our series we found a high rate of nephrectomies performed for malignant and benign conditions, despite changes in the investigation and management of renal tract pathologies. It is important that these children who have a solitary functioning kidney have long-term follow-up.

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Laparoscopic Pyeloplasty for Repair of Pelvi-Ureteric Junction Obstruction in Children

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Objectives: To evaluate our preliminary experience in transperitoneal laparoscopic pyeloplasty in children with pelvi-ureteric junction (PUJ) obstruction. The study analyzed the safety, efficacy, outcome parameters of operative time, analgesic requirement, postoperative stay and complications.

Methods: Over the last year 2009, 10 transperitoneal laparoscopic pyeloplasties in children were performed at King Hussein Medical Center. The patients were placed in a lateral position with three working ports. The PUJ was resected and the anastomosis made using 6/0 and 5/0 absorbable sutures, 6 patients underwent reduction of the huge renal pelvis. A JJ stent was inserted by laparoscopy in all patients and a perianastomotic drain was placed for 2 days in 6 patients. Bladder catheter was inserted in all patients for 24 hours. Follow-up included clinical assessment and functional assessment by ultrasound and isotope renography at 2 and 6 months.

Results: The patients included 3 females and 7 males; the mean age was 7 years (range, 3-12 years). Right sided laparoscopic pyeloplasty was performed in 3 patients while the other 7 patients had left sided pyeloplasty. The indication for pyeloplasty was kidney obstruction with deterioration of renal function on isotope renography and ultrasound. An aberrant crossing vessel was found in one patient. Mean operating time was 200 min (range 120-400 minutes). In our series, one patient had simultaneous laparoscopic cholecystectomy. The mean hospital stay for all patients was 3 days, range from 2 to 5 days. There were no intra-operative or post-operative complications. There was no need for conversion to open pyeloplasty. Blood transfusion was not required in any case and there were no mortalities. All patients showed improvement of renal function after removal of JJ stent by ultrasound and isotope scan.

Conclusion: Transperitoneal laparoscopic pyeloplasty in children is a feasible and safe technique. Laparoscopic pyeloplasty operation times in children reduced by experience. The length of hospital stay and convalescence is short and hence rapid return to normal activity is expected with less analgesia requirements, however, the laparoscopic pyeloplasty is more difficult and the operative time remains longer than open pyeloplasty. Follow-up examination verified perfect cosmetic and functional result with excellent patients and family satisfaction.

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Thoracomesenteric Bypass for Chronic Mesenteric Ischemia

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Purpose: Mesenteric revascularization for chronic mesenteric ischemia (CMI) traditionally involves antegrade or retrograde bypasses originating from the supraceliac or infrarenal aorta. The distal thoracic aorta (DTA) may provide a better inflow source than the abdominal aorta. The purpose of this report is to evaluate the results utilizing the DTA as inflow for the surgical treatment of CMI.

Methods: All patients undergoing mesenteric revascularization for CMI with grafts originating from the DTA were identified from 1990 to 2009. A ninth interspace thoracoretroperitoneal incision was used for exposure and distal aortic flow was maintained by using a partial occlusion clamp.

Results: All patients presented with chronic abdominal pain and/or weight loss, with some patients requiring urgent revascularization secondary to acute exacerbation of chronic symptoms. A significant proportion of the patients had both celiac (CA) and superior mesenteric artery (SMA) bypass grafts placed, while a smaller percentage had SMA grafts alone. There was a low perioperative death and major complication rate given this high-risk population. There was no renal failure, mesenteric infarction, or spinal cord ischemia. Life table survival was reasonable during follow-up. Nearly all patients remained asymptomatic and required no additional procedures to assist patency.

Conclusions: Antegrade mesenteric revascularization utilizing the distal thoracic aorta, as inflow is associated with a low morbidity and mortality. Furthermore, it provides excellent mid-term patency and survival results and should be considered as a primary approach for reconstruction of patients with chronic mesenteric ischemia.

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Hybrid Procedures for Thoracoabdominal Aortic Aneurysms.

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Treatment of thoracic aortic pathologies has been rapidly changing over the past five years with the FDA approval of thoracic stent-grafts. Although not studied in any of the clinical trials, adjuvant techniques are being used to expand the applicability to patients with more extensive thoracoabdominal aortic aneurysms and dissections. Although the procedural techniques have been described by several aortic specialists and are fairly standard, the reported outcomes differ. The objective is to analyze the results of hybrid procedures involving complete visceral debranching of the aortic and endovascular exclusion of the thoracoabdominal aortic aneurysms.

The management of thoracoabdominal aortic aneurysms is among the most complicated for today's vascular specialists. Most physicians consider it to be the most lethal vascular disorder and associated with one of the highest morbidity profiles. In some regards, management of a subset of these disorders became vastly simpler with the introduction of thoracic aortic stent-grafts. Although prospective randomized trials have never been conducted, the utilization of thoracic endovascular procedures to manage thoracic aortic pathologic has gained wide acceptance by those individuals managing the disease. Those who actively oppose stent-graft use are typically individuals who either do not manage the disease or do not perform endovascular aortic repairs. While some surgeons argue that this therapy is unproven, the data from clinical trials as well as large case series support its use for isolated aneurysmal pathology in the descending thoracic aorta with acceptable anatomy. This belief and approach is now widely adopted by most aortic centers in the United States. Controversy over how to manage unfavorable anatomy still exists however.

While stent-graft technology has been shown to significantly reduce major morbidity and mortality compared to surgical controls for descending thoracic

aneurysms its expanded use for lesions involving arch and visceral vessels is still undefined. While many authors advocate its use for arch lesions to avoid hypothermic arrest and potential complications, its expanded use for the visceral region remains the subject of debate at numerous national and international congresses.

While improvements in the surgical treatment of thoracoabdominal aortic repairs have improved during the past two decades, the overall morbidity and mortality at centers of excellence may not reflect the true real world experience. As published by Upchurch et al, the outcomes from medicare patients are sobering. In their analysis of 1542 patients treated during a ten-year period from 1988-1998, the overall mortality was 22.3% with a statistical improvement during the later half of the study period and at higher volume centers. Furthermore, data from the surgical control groups in two of the US clinical trials are not as impressive as those reported by single center centers of excellence for isolated thoracic aneurysm repair. Thus major mortality and morbidity still occurs with traditional open repair despite significant improvements in anesthesia, critical care and surgical techniques. In an effort to reduce these complications, alternative techniques to treat patients with extensive TAAA are being investigated.

Despite continued engineering efforts since the first report of endovascular thoracic aortic repair in 1994, branched and fenestrated designs have been slower to develop and outside of a few physician sponsored investigational device sites, this treatment is not available in the US. Additionally, the time for construction of custom devices may range from 3-12 weeks depending on the complexity and availability of design/manufacturing teams. While off-the-shelf devices would reduce or eliminate this wait time, their development may still be years away and the percent applicability is still unknown. Therefore patients presenting in an urgent nature or those with large TAAA may be at potential risks for rupture since they cannot wait for the appropriate device construction. In addition, many of these patients have significant co-morbid risk factors and may have no other options because some anatomic configuration do not lend themselves to total endovascular repair. In an effort to provide these patients with an alternative to traditional repair or "watchful waiting", hybrid (debranching) procedures were conceived and implemented in order to reduce the insult of aortic cross-clamping and dual cavity exposure risks, as well as decrease the visceral and renal ischemic time. After the visceral blood flow has been re-routed, endovascular exclusion with FDA approved devices is then undertaken.

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Great Vessel Debranching for TEVAR

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Thoracic aortic aneurysms and other thoracic aortic lesions may become life-threatening conditions if they remain untreated. Conventional open surgical reconstruction with placement of an interposition graft is regarded as a definitive form of treatment, but is associated with considerable operative morbidity and mortality. Thoracic aortic lesions involving the aortic arch require more complex surgical interventions necessitating cardiopulmonary bypass, and hypothermic circulatory arrest. Outcomes from this form of treatment have a reported early stroke and death rate of up to 25%.

Thoracic endovascular aortic repair is a less invasive alternative for the treatment of many thoracic aortic lesions. The application of a thoracic endoprosthesis may be limited by the extent of involvement of the proximal thoracic aorta as coverage of arch vessel ostia may be necessary to obtain adequate proximal endograft fixation and aneurysm exclusion. In an effort to overcome proximal landing zone limitations imposed by arch vessel involvement, hybrid surgical-endovascular reconstructive and debranching bypass procedures have been performed to create a proximal landing zone of adequate length. Although these adjunctive techniques incorporate invasive surgical procedures, it is believed that minimizing the procedural invasiveness, by avoiding aortic cross-clamping and/or hypothermic circulatory arrest, morbidity and mortality outcomes can be improved especially in high-risk patients. Several surgical approaches and techniques have been described for various levels of aortic arch involvement with encouraging early and mid-term results, although the long-term durability of these hybrid surgical-endovascular procedures remains to be defined.

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Carotid Body Tumors: 15 years experience

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Objectives: Of all the paragangliomas in the head and neck, carotid body tumors are the most common .They are rare hypervascular lesions derived from the neural crest paraganglion cells. In this study, we present our 15 year experience in dealing with this neoplasm.

Methods: Review of the records of 33 patients surgically treated for carotid body tumors between the years 1993 and 2008 at Queen Alia Military Hospital and King Hussein Medical Center/ Vascular Unit was conducted. Nineteen patients were males and 14 were females .The mean age was 46 years. All the patients presented with a painless neck mass that was investigated by duplex ultrasound followed by CT angiogram. Two patients had hoarseness of voice and dysphnea, one had dysphagia and one had vertigo. Complete surgical excision was performed with close follow up in respect to complications, recurrence and behavior of the tumor.

Results: According to Shamblin classification, 5 tumors were type I , 18 were type II and 10 were type III confirmed intraoperatively. Four patients had bilateral involvement at the time of presentation. Six patients had positive family history of the tumor. After successful surgical resection, a mean follow up period of 24 months showed a zero mortality rate and no evidence of recurrence. Transient neuropraxia of the facial nerve was noticed in one patient, injury of recurrent laryngeal nerve in another patient while post operative localized hematoma had to be evacuated in two patients.

Conclusion: Although rare, carotid body tumor should be kept in mind in the differential diagnosis of anterior triangle neck mass. Complete surgical excision after adequate investigations is the treatment of choice. This is best achieved in a specialized centre with experienced vascular surgeons to a get the finest outcome.

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Ruptured Abdominal Aortic aneurysm

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Objectives: Most abdominal aortic aneurysms (AAAs) are asymptomatic, not detectable on physical examination, and silent until discovered during radiologic testing for other reasons. Tobacco use, hypertension, a family history of AAA, and male sex are clinical risk factors for the development of an aneurysm. Ultrasound, the preferred method of screening, is cost-effective in high-risk patients. Repair is indicated when the aneurysm becomes greater than 5.5 cm in diameter or grows more than 0.6 to 0.8 cm per year. Asymptomatic patients with an AAA should be medically optimized before repair, including institution of beta blockade. Symptomatic aneurysms present with back, abdominal, buttock, groin, testicular, or leg pain and require urgent surgical attention. Rupture of an AAA involves complete loss of aortic wall integrity and is a surgical emergency requiring immediate repair. The mortality rate approaches 90 percent if rupture occurs outside the hospital. Our study is aiming to review our experience with open repair of ruptured abdominal aortic aneurysm and to compare our results with those reported in the literature to update the management of such condition.

Methods: Open surgical repair has been performed on three consecutive patients who presented with ruptured abdominal aortic aneurysms to our center. We report our experience in these cases and the pertinent surgical literature is reviewed.

Results: All three patients survived the operation without any mortality. One patient needed long-term mechanical ventilation and a tracheostomy.

Conclusion: Ruptured abdominal aortic aneurysm is a disastrous pathologic condition which requires prompt vascular repair. Such repair should be done on emergency basis once the diagnosis is made taking into consideration a high mortality rate which is ranging from 50% to 100%. Endovascular repair should be an alternative in stable patients.

Hall I Session 4
Pediatric Surgery

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Single Port Laparoscopic Surgery in Children

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Single port access (SPA) surgery, also known as laparo endoscopic single-site surgery (LESS), (SILS), (OPUS), (SPICES), (NOTUS), or (E-NOTES) is an advanced minimally invasive surgical procedure in which the surgeon operates almost exclusively through a single entry point, typically the patient's umbilicus. SPA surgical procedures are like many laparoscopic surgeries in that the patient is under general anesthesia, insufflated and laparoscopic visualization is utilized.

SPA was first presented at The Annual Congress of Turkish Association of Pediatric Surgeons, October 2005. The SPA technique has been used to perform various surgeries like appendectomy, cholecystectomy, nephrectomy, hysterectomy, oophorectomy, adrenalectomy, gastric bypass, Nissen fundoplication, hernia repair, splenectomy, colon resection , liver resection, cryoablation, and more. Since the entire surgery is performed through the umbilicus, it is unlikely to leave any visible scar like a traditional multi-port laparoscopic approach,and patients should benefit from less post-operative pain, less blood loss, faster recovery time, fewer complications, and better cosmetic results. SPA surgery can be done with standard instrumentation. Although a number of other single incision techniques use new instrumentation, most of the SPA surgeries so far in the USA and Europe have used standard instrumentation ,and collaboration with industry is critical to the development of effective and novel advanced technologies and instruments capable of meeting the demanding and specific requirements of such a technique. Specialized equipment for SPA surgery falls into two broad categories; access ports and hand instrument. Hand instruments come in two configurations - standard or articulating. Standard hand instruments are rigid in design and were developed over the last 30 years for use in laparoscopy. Articulation is designed to overcome one of the challenges inherit in SPA, decreased triangulation of instrument. Two companies that manufacture the surgical instruments are Novare Surgical, who makes RealHand and Cambridge Endo, who makes Autonomy Laparo-Angle articulating instruments with angle locking.

Advantages, disadvantages and limitations of SPA will be discussed as well as some technical issues

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Laparoscopically Assisted Anorectal Pull-Through for High Imperforate Anus: Experience at King Hussein Medical Center

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Objectives: To evaluate our experience in the laparoscopically assisted anorectal pull-through for high imperforate anus at King Hussein Medical Center.

Methods: From May 2008 to January 2010, 9 patients with a diagnosis of high anorectal malformation underwent laparoscopically assisted anorectal pull-through. All patients were treated with a colostomy in the newborn period followed by a delayed laparoscopically assisted anorectal pull-through. The patients were followed up for fecal continence and bowel habit. The follow up period ranged from 4 months to 1.5 years.

Results: There were 6 males and 3 females. Their ages ranged from 4 months to 2 years (mean 11.4 months) and their weights ranged from 7 -12 kilograms. The associated malformations noted were sacral malformation and mild congenital heart

disease. All 9 cases the laparoscopically assisted anorectal pull-through were completed successfully without conversion to open surgery. Mean operative time was 155 minutes (range, 110–200 minutes). All patients underwent variable postoperative period of anal dilatation. There were no cases of incontinence in the follow up period.

Conclusion: Although longer follow-up to evaluate continence is to come, laparoscopically assisted anorectal pull-through should be considered for the correction of the high imperforate anus. It offers the advantage of good visualization of the fistula and the surrounding structures and being minimally invasive with small puncture wounds.

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Characteristics of Laparoscopic Inguinal Hernia Recurrence

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Objectives: To review the characteristics of recurrence after laparoscopic hernia repair. The goal is to improve surgical techniques so that recurrences are reduced.

Methods: The video documents of 1071 laparoscopic inguinal hernia repairs in two pediatric surgical departments (university medical center Mainz and Jena Germany during a period from 1997 to 2008.Were retrospectively studied with respect to the affected side, anatomical appearance, gender, history and time interval between operation and recurrence. Only indirect, clinically manifest hernias were included.

Results: Recurrence occurred in 32 children (3%), 26 boys and 6 girls, aged 62 days to 14 years (median 3 years). The right side was affected in 21 children, the left in 10 children and a bilateral recurrence was noted in one child. 25of the recurrences occurred medial to the previous suture while 7 occurred laterally. The knot had become loose in 3 cases. An experienced surgeon had only half the recurrences of a less experienced surgeon. The median time interval between surgery and recurrence was 3.8 months. Children up to the age of 2 years had the highest risk of recurrence.

Conclusion: The right/left incidence of recurrences roughly was in proportion to the statistical incidence of hernias. Boys had more recurrences than girls. Most recurrences were medial to the previous suture. The more experienced the surgeon was, the fewer his recurrence. The stitches at the medial aspect of the hernia, close to the vas, seem to be the most crucial ones.

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Audit on Pediatric Day Case Surgery

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Objectives: Day case surgery of infants and children has been widely accepted by surgeons. Its benefits to the patients, parents and hospital have been well established worldwide. We chose to describe our current practice of pediatric day surgery, looking to establish our own protocol, hopefully to be implemented in our new children's hospital.

Methods: This is a descriptive study conducted over seven month period; March to September 2007. All children that were admitted to the day case surgery unit for elective surgical procedures were included in the study. The baseline demographic data including diagnosis, past medical history and gestational age were collected on the patient information sheet. The study analyzes our selection of patients, pre-operative preparation, type of operation, reason for cancellation, discharge procedure, unplanned admission rate and anesthesia protocol.

Results: During the study period 457 patients were admitted to the day surgery unit for elective surgery. 386 patients (86%) were males. The patients' age ranged from 2 weeks to 190 months. 15 patients had a history of prematurity, 8 of them were below a post-concepational age of 46 weeks at the time of surgery. The body weight ranged from 2.5 kilograms to 52 kilograms. 99% of the patients attended pre-operative clinic. 35 (7.8%) patients had their surgery cancelled at the day of surgery. The commonest reason

for cancellation was upper respiratory tract infection in 17 patients (49%). The highest number of procedures involved inguinoscrotal pathologies. After the operation, 32 (8%) patients were unable to be discharged home because of surgical causes in 18 patients (56%), and anesthesia related complications in 4 patients (13%).
Conclusion: This study clearly identifies that our current practice of day surgery needs to be reviewed. We feel a committee should be established to set a clear, implemental policy and protocol according to our needs and resources at King Hussein Medical Center. Training of day case nurses and the co-operation between the anesthetists, surgeons, and hospital administration could not be over emphasized to run a large day surgery program.

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Laparoscopic Nephroureterectomy in Children, our Preliminary Experience

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Objectives: To evaluate our preliminary experience in transperitoneal nephroureterectomy in children. The study analyses the safety, efficacy, outcome parameters of operative time, analgesic requirement, postoperative stay and complications of the procedure.
Methods: During the period of 3 years 2007 through 2009, 15 transperitoneal laparoscopic nephroureterectomies in pediatric age group were performed at King Hussein Medical Center.
Results: The patients included 9 females and 6 males, the mean age was 6 years (range, 3-14 years). Right sided nephroureterectomy was performed in 5 cases while left sided nephroureterectomy was performed in 10 cases. The indications for nephrectomy were dysplasia (n = 2), chronic pyelonephritis (n = 2), pelvi-ureteric junction obstruction (n = 1), vesicoureteric reflux (n = 9) and double moiety with ureterocele (n = 1). Mean operating time was 150 min (range 40-260 minutes). We used Endoclip for the ligation of the renal pedicle in 7 cases and Endo-Ligasure in 8 patients. In our series, 4 simultaneous surgical procedures were performed in the same setting these included laparoscopic cholecystectomy and laparoscopic inguinal hernia repair. The mean hospital stay for all patients was 2 days (1 – 4 days). There were no intra-operative or post-operative complications. Conversion to open nephrectomy was required in 1 patient due to technical reasons. Blood transfusion was not required in any case and there was no mortality.
Conclusion: Transperitoneal laparoscopic nephroureterectomy in children is a feasible and safe technique. Laparoscopic nephrectomy operative time is reduced by experience. The length of hospital stay and convalescence is short and hence rapid return to normal activity is expected with less analgesia requirements.

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Laparoscopic Nissen Fundoplication in Children, our Preliminary Experience

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Objectives: To evaluate our preliminary experience in laparoscopic Nissen fundoplication for gastroesophageal reflux disease in children (GERD). The acceptability, safety, efficacy, outcome parameters of operative time, analgesic requirement, postoperative stay and complications of the procedure were analyzed.
Methods: From January 2008 through December 2009, 10 laparoscopic Nissen fundoplications in children were performed at King Hussein Medical Center. During the procedure the Endo-Ligasure and hook diathermy were used for dissection and division of short gastric vessels. The patients were followed in the clinic for relief of symptoms and functionally by barium meal and endoscopy.
Results: The patients included 3 females and 7 males; the mean age was 4 years (range, 3-9 years). The indications for surgery were Barret esophagus, severe esophageal ulceration, stricture, recurrent bleeding, para-esophageal hernia and recurrent aspiration pneumonia. One patient had previous repair of esophageal atresia. Mean operating time was 180 min (range

125-300 minutes). The mean hospital stay for all patients was 2 days, range from 1 to 4 days. There were no intra-operative or post-operative complications. Conversion to open fundoplication was required in 1 patient due to technical reasons. Blood transfusion was not required in any case and there was no mortality. The follow up revealed complete reversal of the reflux with arrest of the progression of the esophageal disease.
Conclusion: Laparoscopic Nissen fundoplication in children is rapidly becoming the procedure of choice for surgical correction of symptomatic gastroesophageal reflux because of the advantages of reduced discomfort and short hospitalization. It is a feasible and safe technique. Laparoscopic Nissen fundoplication operative time in children decreases by experience. The length of hospital stay and convalescence is short and hence rapid return to normal activity is expected with less analgesia requirements. Follow-up examination showed excellent clinical, radiological and endoscopic findings.

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The Importance of Chest X-ray in the Diagnosis of Foreign Body Aspiration among Children

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Objectives: Evaluation of plain chest X- ray as the first and available imaging modality in foreign body aspiration of children.
Methods: A retrospective study conducted on the records of 59 pediatric patients less than 18 years of age with the discharge diagnosis of foreign body aspiration from 2006 to 2008 at Prince Rashed Ben Al-Hassan Hospital in North of Jordan.
Results: The mean age was 4.3 ± 2.6 year. Male-to-female ratio was 1.4:1 of these 34 (57.6%) were male and 25 (42.4%) were female. The most common clinical findings were: history of chocking (78%), decreased breath sounds (40.7%), wheezing (37.3%), cough (22%), respiratory distress (15.3%) and fever. Chest X- ray was normal in 37.3% of patients. Air trapping (Emphysema) was most common radiological findings (27.1%). Other radiological findings were consolidations (10.2%) atelectasis (6.8%) and opaque foreign bodies (5.1%). In all cases except three aspirated foreign bodies were food materials. Bronchoscopic removal of foreign body was done successfully for all of them.
Conclusion: Foreign body aspiration in children is usually diagnosed by history, physical examination and radiographic findings, however sometimes these findings may be misleading. Negative chest X- ray should not preclude diagnosis of foreign body aspiration in children with a strong history of foreign body aspiration, and early bronchoscopic examination will be safe and life saving.

Hall K Session 1
Restorative Dentistry

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Tensile Peel Strength of Different Types of Luting Cements

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Objectives: To measure the tensile peel strength of different types of luting cements and study their effect on the adhesive bond quality of resin bonded bridges.
Materials and Methods: Six cements were investigated; two chemically adhesive resin cements (Super-Bond C&B and Panavia 21), one compomer cement (Dyract Cem), two resin-modified glass ionomer cements (Fuji Plus and RelyX Luting), and one conventional glass ionomer cement (Ketac Cem). The tensile peel strength was investigated by bonding grit-blasted Ni/Cr alloy beams to a block of the same alloy using the different types of luting cements (n = 20 for each cement), leaving half the length of the beam free. Beams were pulled off the block with a peeling action by applying a tensile load to the free end of the beam and load at failure recorded. All fractured surfaces of the tested samples were examined under a Stereo Zoom Microscope. Data were analyzed using one-way analysis of variance (ANOVA).
Results: Significant differences were found

between the mean tensile peel strength of the cements. Tukey's pairwise comparisons showed that the mean tensile peel strength of Super-Bond (7.7 N) was significantly greater than Panavia 21 (6.1 N) as well as all other luting cements. Ketac Cem gave the lowest value of TPS (2.4 N). The mode of failure for all the tested cements was cohesive in nature.

Conclusion: Adhesive resin cements have the highest tensile peel strength which may explain their good clinical performance in resin bonded bridges compared to other luting cements.

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Awareness and Attitude Regarding Prosthetic Management of Missing Teeth

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Objectives: To evaluate awareness and attitude regarding tooth replacement options and level of knowledge, among a group of medical and paramedical subjects, and to compare it to the general population.

Methods: This study was conducted at Queen Alia Military Hospital in Amman / Jordan. A total of 612 self administered questionnaires using simple Arabic language were distributed to two groups of subjects. Of these, 533 questionnaires were returned. Questions focused on the awareness and attitude toward replacement of missing teeth as well as the preferable choice for replacement (i.e; fixed, removable or implant prosthesis). The first group (GI) consisted of 272 medical and paramedical staff working in a military hospital at Jordan Royal Medical Services. The dental staff was excluded from the study. The other group (GII) consisted of 261 patients from the general population attending the dental department in the same hospital. Patients in the second group had a comparable level of education; Tertiary and University level, however, non medical. All the participants were partially edentulous with an age range of 35-54 years. Clinical examination was done by a qualified Prosthodontist to evaluate the possible prosthetic treatment options for replacement. The results were analyzed and comparison was made among the two groups.

Results: Patients in the first group were found to be more aware of the available choices for tooth replacement as well as the limitations associated with it. More than 80% of the participants found that replacement of the anterior teeth was more important than posterior teeth. Implants and fixed partial dentures respectively were significantly more preferred by patients when compared to removable prosthesis, although replacement was clinically not indicated in about one third of cases.

Conclusions: Medical and paramedical staffs were generally more aware of the prosthetic options for replacement of missing teeth when compared to the general population, however, the demand for dental replacement by patients was significantly less when compared with the actual need for that replacement.

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Changes in Pulp Testing Responses during Orthodontic Treatment and Retention

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Objectives: To investigate the effect of orthodontic tooth movement on the pulp response to both thermal and electrical stimuli during active treatment and retention phase and to compare it to non orthodontic patients.

Methodology: This study was conducted at the Dental Department of Princess Aisha Medical Complex during the period from 2007-2008. Forty-seven subjects who were planned to have fixed orthodontic appliances were used as the study group (21 males and 26 females with a mean age of 15.1 years). The control group consisted of twenty three non-orthodontic subjects (11 males and 12 females with a mean age of 16.2 years). Cold and electrical stimuli

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were applied to the maxillary incisors and canines in both groups, immediately before and after the placement of fixed appliances (base-line), and at regular intervals during active treatment and 12 months into retention phase.

Results: At base-line, response thresholds to electrical pulp testing were typically higher for orthodontic subjects, particularly for the lateral incisors. The application of force immediately increased the response threshold to electric pulp testing, which peaked after two months and gradually lowered afterward. At the end of active treatment, the response means for teeth tested remained elevated however, it returned to pre-treatment values toward the end of retention phase. As for the control group, the response thresholds for electrical pulp testing over the duration of the study were relatively constant. On the other hand, response to thermal testing was more consistent and reliable throughout active treatment and retention in the orthodontic group of patients.

Conclusion: During orthodontic treatment, thermal pulp testing maybe more reliable when compared to electrical testing, which should be interpreted cautiously by dental practitioners.

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Cracked Tooth Syndrome

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Cracked Tooth Syndrome is an incomplete fracture of vital posterior teeth that involves the dentine and occasionally extends to the pulp. The patient generally experiences sharp pain on biting without any visible reason and he can't diagnose the particular tooth that hurts. Decay, large filling and bruxism may be predisposing factors. Symptoms include tooth sensitivity, pain and increased tooth mobility according to the degree and severity of crack. Diagnosis is difficult and depends on many factors: dental history, clinical examination and radiographic test. Treatment of CTS depends on type, location and severity of the crack and it begins with simple filling, crowning or even extraction of the tooth in some hopeless cases

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Treatment Options of the Congenitally Missing Maxillary Lateral Incisor: Orthodontic Space Closure vs. Prosthetic Replacement

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Objectives: To compare aesthetics according to patient's opinion, occlusal function and periodontal health in subjects with congenitally missing maxillary lateral incisors who were treated either with orthodontic space closure or space opening and prosthetic replacements.

Materials and methods: This study was conducted at Prince Rashed Ibn Al Hassan Hospital during the period from 2004-2005. Thirty-seven subjects (25 females and 12 males with a mean age of 23.6 years) with congenitally missing maxillary lateral incisors were included in this study. Nine subjects were treated with orthodontic space closure, while 28 patients had space opening and a replacement prosthesis either fixed, removable or implant retained. The patients' opinion of the aesthetic result was evaluated using a questionnaire during a structured interview. The functional status, dental contact patterns and periodontal condition in both groups were evaluated. Statistical analysis of data was performed using SPSS-V11 software. Differences between the two groups were analyzed using Student's t-test and chi-square test. Level of significance was set to 5%.

Results: Sixty percent of patients participating in this study were females. 81% of patients had bilateral missing maxillary lateral incisors. 76% of patients were treated with prosthetic replacement and the remaining with space closure. In general, subjects treated with orthodontic space opening and prosthesis were significantly more satisfied with the appearance of their teeth when compared to the other group. No differences in tooth contact pattern between the two groups were found. However, a significant increase was noted in the presence of plaque and bleeding on probing on the maxillary central incisors and canines in the group receiving a prosthetic replacement.

There were no differences between the two groups regarding presence of pockets and buccal gingival retraction.
Conclusion: In patients with congenitally missing maxillary lateral incisors, although orthodontic space opening and replacement of missing teeth with prosthesis produces results that are aesthetically well accepted by patients, unfortunately, such prostheses impair periodontal health with accumulation of plaque and consequential gingivitis.

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The Prosthodontic Concept of Crown to Root Ratio: A Review

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Crown-to-root ratio is considered as one of the primary variables in the evaluation of the suitability of a tooth as an abutment for a fixed or removable partial denture. However, there is a lack of consensus and evidence-based research on the influence of crown-to-root ratio on diagnosis and treatment planning of periodontally compromised teeth. Future research should concentrate on predictive indices that will assist the clinician in deciding whether to preserve compromised teeth or place implants. This lecture presents the definition, implications of crown-to-root ratio in clinical practice, its use as a diagnostic tool, and the effect of splinting and other clinical procedures on the abutments.

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Oral Manifestation and Dental Management of Patients with End Stage Renal Disease Receiving Hemodialysis

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Objectives: This study highlights the clinical features and oral manifestations of patients with end stage renal disease receiving hemodialysis and the precautions to be taken during their dental management.
Methods: A total number of 135 patients aged between 15-90 years, receiving hemodialysis in the Renal Unit of Prince Rashed Ibn Al-Hassan Hospital, during the period from August till November 2009, were included in this study. Patients were examined for oral manifestation of xerostomia, periodontitis, uremic fetor, candidiasis, DMFT and others. Xerostomia was diagnosed when a dry or sticky mucosa was found and when the patient reported a dry mouth. Uremic fetor was identified when the patient had urine-odor breath. Candidiasis was diagnosed as yellowish-white lesions found on the oral mucosa that can be easily scraped off by a blunt instrument. This diagnosis was confirmed by the presence of gemmating hyphae in a PAS-stained cytological smear. The DMFT for each patient was calculated by dividing the number of the decayed, filled, missed teeth over the total number of the teeth examined for each patient. A flat surface mouth mirror, gauze and dental explorer were used. Periodontitis was diagnosed by determination of the loss of clinical attachment.
Results: 42% of the subjects included in the sample had xerostomia. The mean DMFT was 34. 78% had periodontitis with attachment loss of more than 5mm and 65% had candidal infection.
Conclusion: A majority of patients with end stage renal disease receiving hemodialysis do not present with satisfying oral health. They need both preventive as well as interventional dental care, thus it is necessary to institute a specialized Dental Care Unit for them where specific treatment protocols are designated.

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Periodontal Status of Pregnant and Non-Pregnant Women in Al-Karak City in Jordan

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Objectives: To evaluate the periodontal health status of pregnant and non-pregnant women in Al-karak province in Jordan, and to compare the results between both groups.
Methods: The study group consisted of 230 pregnant women, with a mean age of 27.2 years, attending the obstetric clinics at Prince Ali Bin AL-Hussein Military Hospital in Al karak city between June and December 2007.The control group consisted of 230 non-pregnant women, with a mean age of 25.03 years, either working in the hospital or attending the dental section, however for reasons other than periodontal problems. All subjects were examined for periodontal status by applying: the community periodontal index (CPI), plaque index (PI), and gingival index (GI).
Results: Three percent of non-pregnant women were found to have healthy periodontal tissues compared to only 0.4% pregnant women with healthy periodontal tissues. Despite the fact that the mean values of CPI and PI as well as bleeding and shallow pockets were greater in pregnant women, differences among the two groups were not statistically significant. The only statistically significant difference among the two groups was in the mean values for GI, where results were slightly higher in pregnant women.
Conclusion: Pregnant women usually suffer more from gingivitis when compared to non pregnant women. Thus, in order to improve oral hygiene practice among them, increasing public awareness through educational programs using mass media is an important task for oral health workers. In addition, obstetricians are advised to refer pregnant women to the periodontal clinic as an important part of Antenatal Care.

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Prevalence of Dental Caries, Gingivitis and Malocclusion in School Children and Adolescents in the Middle and South Areas of Jordan

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Objectives: To determine the prevalence of dental caries, gingivitis and malocclusion among school children and adolescents in the Middle and South areas of Jordan.
Methods: Data was collected through a clinical examination carried out by two examiners, for 3482 schoolchildren and adolescents (1739 students in the South and 1743 in the Middle areas), aged 6 to 16 years, in the period between September and December 2009. 22 schools were involved in the study. Dental caries experience, gingival condition and malocclusion were assessed using decayed, missing and filled teeth (DMFT/deft) system, Loe and Silness Gingivitis Index, and Angle's classification for malocclusion.
Results: Forty percent of students examined in the Middle area of Jordan had caries, 3% had missing teeth, and 26% had filled teeth. The mean DMFT/ deft was more than 4. Gingivitis was detected in18% and malocclusion was found in 11% of the sample. 59% of students in the South area of Jordan had caries, 13% had missing teeth, and 40% had filled teeth. The mean DMFT/ deft index was more than 5. Both gingivitis and malocclusion were detected in 36% of cases. The difference between the two groups was statistically significant.
Conclusion: School children and adolescents in the Middle and South areas of Jordan have shown moderate to high levels of dental caries. The levels of gingivitis and malocclusion were moderate as well. Scores were worse among students in the southern area compared to those in the middle. Therefore, the need for building school-based oral health services, as part of a health system, is evident and both preventive as well as restorative approaches should be adopted for both groups.

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Oral Lesions among Diabetic Patients; Experience at Prince Rashed Military Hospital.

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Objectives: The study was conducted to determine the prevalence of soft tissue pathologies in diabetic patients.
Methods: A cross-sectional study

conducted through the year 2009, included 235 diabetic patients who attended the dental department at Prince Rashed Ben Al-Hassan Hospital, North of Jordan. Diagnosis of oral lesions was done by clinical examination. Burning mouth was assessed by visual analog scale in persons who suffered, subjective xerostomia was evaluated, and the data were transferred to Statistical Package of Social Science software.

Results: The mean age of patients was 52.2 ± 8.3 years. The all candidiasis lesions was 17.4% which included denture stomatitis 6.4%, angular cheilitis 4.7%, median rhomboid glossitis 2.1% and papillary atrophy of tongue 4.3%. The non-candidal lesions were 21.7%, which included fissured tongue 11.5%, geographic tongue 8.5% and lichen planus 1.7%. 7.2% of patients suffered from glossodyna. 14.5% of patients had xerostomia.

Conclusion: Diabetes Mellitus had an important role in the appearance of oral lesions. Thus, patients should maintain their oral hygiene and control their glucose regularly.

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Clinical Applications of Post Orthodontic Retention Methods

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Planning for and executing retention are two of the most difficult elements of clinical orthodontic practice. However, no means are yet available to help predict relapse or give objective advice about duration of retention. Thus, extensive further investigation is required to ensure that both effective and appropriate evidence-based practice is adopted in retention strategies. In this presentation, the factors affecting post treatment retention as well as a review of the clinical techniques and their specific indications will be discussed.

WEDNESDAY

Hall A1 Session 1
Restorative Dentistry and Endodontics

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A Synthesis on Root Canal Treatment: Clinical, Technical Chemical and Biological Perspectives

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The microbial aetio-pathogenesis of apical periodontitis is well established. A plethora of root canal preparation instruments and techniques now enable the general dental practitioner to produce technically satisfactory or even excellent results, efficiently. True to the historical pattern of root canal treatment procedure development, the biological considerations have lagged behind in the consciousness of the practitioner. The developments in mechanical preparation of root canal systems have also left notions of debridement some paces behind; with the result that rapid mechanical root canal preparation may leave root canal systems relatively poorly debrided. The growing confidence of practitioners in preparing canals and filling them to radiographic gold standards, coupled with commercial pressures in maintaining a practice may have driven such accomplished artisans to argue for the single visit approach. Such skills in accomplished hands and minds are not so easily transferred to every practicing dentist. Precise definition of a technically optimal root canal treatment procedure remains a challenge. The lecture will discuss aspects of quality control and training that may allow such exacting standards to be reached.

This presentation will consider the biological and technical sequence of events leading from the disease entity to its cure. Logically, it is necessary to consider the:

- biological nature of apical periodontitis and its associated features;
- sequence of procedural steps or the treatment intervention known as "Root canal treatment" and their respective effects on the bacterial flora and root canal environment.

The lecture will address the question of how the procedure probably works. In doing so, it will discuss the issues surrounding root canal bacterial biofilm, antimicrobial irrigant interaction with bacteria in planktonic and biofilm form, the probable factors involved in biofilm disruption and bacterial killing. This will be correlated with in vivo clinical, outcome, histological and microbiological data.

The important problem of fluid dynamics in the important apical environment will be considered, as well as the probable interaction between the residual apical bacterial flora, root canal filling material and host response that ultimately yields periapical healing or disease persistence.

190
The Incidence of a Fourth canal in Maxillary and Mandibular First Molars in a Group of Jordanians

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Objectives: To investigate clinically the incidence of a fourth canal in maxillary and mandibular first molars in a group of Jordanians.

Methods: Patients who were referred to the Conservative Clinic at Princess Aisha Medical Complex for endodontic treatment from November 2008 till May 2009 were included. The teeth included were both clinically and radiographically examined for number of canals. The presence of the additional mesiobuccal and distal canals was recorded.

Results: A total of 399 patients, 216 female and 183 male were treated. The mean age of the patients was 28.2 years ranging from 13.0 to 66.0 years. 195 teeth (48.9%) were maxillary first molars and 204 teeth (51.1%) were mandibular first molars. 45 teeth (23.08%) out of the 195 maxillary first molars had a second mesiobuccal canal. All the distobuccal and palatal roots had a single canal. Regarding the first mandibular molar, out of the 204 teeth, 99 (48.5%) had four canals. 2 mesial canals and 2 distal canals.

Conclusion: The incidence of a second mesiobuccal canal in the maxillary first molars was 23.08%. The incidence of four canals in the mandibular first molars was 51.1%. Clinicians should assume there are additional canals in each root when performing endodontic therapy on maxillary and mandibular first molars.

191
A New Morphological Classification for Fractured Anterior Teeth

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Objective: To introduce a new classification for the traumatic fractures of anterior teeth based on the morphological pattern of fracture lines resulting from the primary injury, as initially observed when the patient first presented to the dental clinic.

Patients and methods: Data were collected from one hundred and fourty children and adolescents aged from 7-16 years, who attended the conservative and pediatric dental clinics in five military hospitals. Patients presented with primary traumatic injuries to the permanent anterior teeth due to various reasons. The fracture lines were recorded and analyzed to detect any pattern that might be repeated In the future, and the percentage of each pattern was recorded.

Results: Almost ninety four percent of the fractures involved one or two central incisors only, while the rest involved one or two central incisors as well as one lateral incisor. There was no canine involvement registered in the traumatic injuries in this study. The fracture patterns were described according to the morphology of fracture, and ordered from I-V according to its percentage of occurrence as follow: Fracture pattern 1 (FPI) is mesial fracture of the incisal edge of the two centrals; 32 cases (22.9%), fracture pattern 2 (FPII) is mesio-distal fracture of one central incisor; 30 cases (21.4%), fracture pattern 3 (FPIII) is mesial fracture of the incisal edge of one

central incisor; 28 cases (20%), fracture pattern 4 (FPIV) is distal fracture of one central incisor; 22 cases (15.7%), fracture pattern 5 (FPV) is mesial fracture of one central incisor and mesio-distal fracture of the other central; 12 cases (8.6%). Other patterns appeared in the analysis, however in minor percentages.
Conclusion: This classification along with the already known classifications for crown fractures set a new basis for morphologic and descriptive pattern of the traumatic injuries for anterior teeth.

192
Ocular Prosthesis (Artificial Eye): Our Experience in the Royal Medical Services

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This lecture is intended to demonstrate our experience in the Royal Medical Services in the art of making Ocular Prosthesis. The history of Ocular Prosthesis production, causes and prevalence of eye loss, types of surgical preparation, impression technique, laboratory steps, and proper care of eye prosthesis will be discussed in details.

193
Clinical Remount and its Relation to Denture Acceptance

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Objectives: To identify whether refinement of occlusion with a clinical remount is associated with enhanced patients' acceptance of their new dentures.
Methods: This study was carried out at Princess Aisha Medical Complex, over a period of two years (2003-2005). Sixty two patients treated with new complete dentures were included in this study. Patients were allocated to two numerically equal groups. On insertion, patients in the study group received complete dentures and a clinical remount procedure was performed. Patients in the control group also received complete dentures however, without a clinical remount. Patients' acceptance of their new dentures was assessed using a self evaluation questionnaire. The Statistical Package for Social Sciences (SPSS 17.0) was used to analyze the data. The t-Test was used to assess the significance of the effect of clinical remount on patient acceptance at $p \leq 0.05$.
Results: Average scores in the study group were higher than the control group for most of the studied factors. Overall acceptance, in particular drinking, chewing, biting into food as well as lower denture tightness was significantly improved.
Conclusion: A clinical remount is vital to complete denture therapy since it considerably improves patients' acceptance of their new complete dentures and hence should be adopted as a routine post-insertion measure for all complete denture patients.

194
Oral Malodor; Self Perception

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Objectives: To investigate risk indicators and self perception of oral malodor as well as oral hygiene habits among undergraduate students at Princess Muna Al-Hussein College of Nursing in Muta University.
Methods: This study was conducted in March, 2007, on 490 undergraduate students at Princess Muna Al-Hussein College of Nursing in Muta University. Students in all four academic years were asked to fill in a self administered questionnaire designed to evaluate self-perception and awareness of oral malodor, oral care habits as well as risk indicators for oral malodor including bleeding gums, mouth dryness, smoking, tooth deposits and tongue coating.
Results: Four hundred and thirty nine questionnaires were valid for analysis with a response rate of 90%. 82% of students reported oral malodor early in the morning, the majority of which were in their first academic year while the minority was in their fourth year. The least reported oral malodor in all academic years was during the afternoon time. Among all studied factors, tongue coating was the only factor found to a have significant effect on oral malodor.
Conclusion: Fourth year students usually have a better level of oral care and hygiene which is reflected on their self perception of oral malodor. Patients' education about factors that cause and/or affect oral malodor and hygiene practices as well as methods of diagnosis, treatment, and motivation are very important.

195
Cigarette Smoking As a Risk Factor for Periodontitis: A Review Study

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Cigarette smoking represents a major preventable cause of human disease. It is the most significant risk factor in the development and progression of periodontal illness. It has direct local and systemic effects on the periodontium. Pocket depth, refractory periodontitis and alveolar bone loss have all been reported to be greater in smokers compared to non-smokers. The main aim of this presentation is to review the possible mechanisms of smoking in the aetiology and pathogeneses of periodontal diseases.

Hall A1 Session 2
Maxilo-Facial Surgery and Implant Dentistry

196
Current Trends in Implant Dentistry
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The utilization of Osseo-integrated implants is beyond the development phase and has become routine application in daily practice.
The scientific documentation is excellent providing long-term data up to 15 years in prospective studies.
In the past 15 years, implant dentistry has seen several trends and developments.

- Implant Surface Developments
- Implant Design Developments
- Aesthetic Aspects in Implant Dentistry
- Prosthetic Concept Development and Zirconium
- CAD CAM Tech, & Computer planning

In this lecture I will discuss the effect of this development in relation to our daily practice.

197
The Importance of Clinical Audit in Improving Health Services

Dr Mohammed El Maaytah
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Clinical audit can make a powerful contribution to clinical quality improvement. From a professional development perspective, audit may expose health professionals to new information and knowledge, while service based audit involving the multidisciplinary team assists in 'breaking down barriers' among professional groups. The practice of health care often lags behind the science. Audit activities initiated, developed and conducted by individual practitioners or clinical teams can therefore be instrumental in changing practice, adjusting resource allocation and improving standards of patient care.
The principle of all clinical audit activity is that it leads to improvements in clinical practice, resulting in improved outcomes for patients. It allows for the systematic, critical review of the quality of clinical practice by a multidisciplinary team. It includes the procedures used for diagnosis, treatment and care of patients, the associated use of resources and the effect of care on the outcome and quality of life for the patient. Audit compares actual practice to a standard of practice. As a result of this comparison, any deficiencies in actual practice may be identified and rectified. This lecture will help you learn how and why to do Clinical Audit.
In this lecture I will discuss the issue of Clinical governance. Clinical governance

is a system for improving the standard of clinical practice, it is composed of Education, Clinical audit, Clinical effectiveness, Risk management, Research and development and Openness.

198
Nonsquamous Cell Malignant Tumors of the Maxillo-Facial Region in Jordanians

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Objectives: To show the patterns and distribution of non squamous malignant tumors of the maxillofacial region in a sample of Jordanian patients.
Methods: Sixty one patients with oral non-squamous cell malignant tumors who had been diagnosed and treated at the hospitals of the Royal Medical Services during the period from 1988-2006 were included in this study, and the relevant epidemiological data were tabulated, analyzed and coded according to the international classification of disease.
Results: Sarcomas (24%) and lymphomas (20%) were the highest occurring malignancies of the jaws followed by adenoid cystic carcinomas (15%), whereas mucoepidermoid carcinomas and adenocarcinomas showed an occurrence rate of 11% and 10% respectively. Most of the tumors occurred in the maxilla (34%) followed by the salivary glands (18%).
Conclusion: Squamous cell carcinomas are far more common than non-squamous cell malignant tumors of the jaws. A better understanding of the distribution and behavior of lymphomas and sarcomas of the jaws is necessary to formulate treatment plans with better prognostic values

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The Evolution of Lasers in Dentistry

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This presentation includes a brief introduction about Laser's physics, properties, way to handle, as well as theory behind its evolution. A quick review about laser history and the types used in dentistry particularly in oral and maxillofacial surgery will be given. The idea behind their applications, indications, and contraindications will be discussed with a special focus about precautions, special handling, and the armamentarium that should be available. Different clinical cases of oral and maxillofacial surgery treated with lasers using different techniques will be illustrated.

200
Treatment of Oro-Facial Tumors: A Presentation of Clinical Cases

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Oral cancer represents approximately 5% of all malignancies in men and 2% in women. It mandates aggressively combined treatment, resulting in significant disability and deformity. The long term prognosis for patients with oral cancer is discouraging with overall survival, following different treatments, of only 30% at 5 years. In this presentation we will review 23 cancer cases which were treated at different military hospitals during the last five years using surgery, radiation therapy, chemotherapy or combined therapy. The intention is to increase dentists' awareness of oral cancer presentation, methods for diagnosis as well as available options for treatment, thus enhancing survival rate, increasing life expectancy and decreasing morbidity and mortality.

5th International Conference of The
Royal Medical Services

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Snoring and Obstructive Sleep Apnea

Dr Mahmoud Eskafi
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Obstructive sleep apnea (OSA) is a breathing disorder, caused by obstruction of pharyngeal airway. Snoring is the cardinal clinical feature of OSA. The condition is believed to give rise to several physical, mental and social consequences.
The list of the pathological and socio-economical consequences associated with OSA grows for each year. Excessive daytime sleepiness, poor concentration, cognitive impairment, psychosocial disruption involving the family, social and working situations are commonly named as consequences associated with OSA. There is also a potential link between OSA and some serious medical conditions such as cardiovascular disorders and diabetes. OSA is believed to contribute to the progression of hart failure and increase mortality. These facts have caused a rise in interest and motivation world wide, not only in the field of sleep medicine but also in other medical and odontological disciplines, to diagnose and treat OSA as a harmful pathological condition.

Several methods has been developed and presented for treatment of OSA during the last two decades. The common aim for all these methods is to try to reduce or prevent the obstruction of the pharyngeal airway. The odontological contribution in this area is use of mandibular advancement devices. The method is simple to use, cost effective and widely recommended for treatment of snoring and OSA.

The lecture is design as a basic curse on pathogenesis and diagnosis of snoring and OSA as well as treatment, with special focus on mandibular advancement devices. The curse will be followed by a workshop concerning clinical aspects and procedures regarding manufacturing of the dental device.

202
The Occurrence of Early Childhood Caries in a Sample of Jordanian Children

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Objectives: To investigate the frequency of early childhood caries in a sample of Jordanian young children.
Methods: A hospital based study was conducted on a sample of 224 children of both genders, aged between 30-72 months who attended the Pediatric Dentistry Clinic, at Queen Alia Military Hospital and Princess Aisha Medical Complex during the period from February to December 2004. Parents were interviewed to investigate factors that might have affected dental caries level. A clinical examination was performed to determine the oral health status of the children. The World Health Organization Criteria (1997) were used to diagnose dental caries. Chi square test was used to analyze the data.
Results: Two hundred and eight children who fulfilled the inclusion criteria were included (96 girls-46% and 112 boys-54%) with a mean age of 55.2 months. Only 24 children (12%) were caries free, while 184 children (88%) presented with caries. Caries was significantly more frequent in boys. The mean DMFT score was 7.8. Over 104 children (50%) were exclusively breast fed, 96 of whom (92 %) presented with caries. Only 20 children were bottle fed (10%), 16 of them (80 %) had caries. The remaining 84 children (40 %) were both breast and bottle fed. Of these, 72 children (86 %) had caries. The association between the type of feeding and the presence of caries did not prove to be statistically significant. Presence of enamel hypoplasia was seen in 26.9% of the subjects (56 children), of whom only 21% presented with no caries while the rest did. The association between the presence of enamel defects and caries was highly significant. A majority of children 164 (79%) had caries in both anterior and

posterior teeth. The bilateral occurrence of molar caries was recorded in 148 children (71%). The teeth most affected by caries were maxillary central incisors (95.7%), whereas the least affected were mandibular anterior teeth (6.5%). Average weaning age was 2 years and the average age of the first dental visit was 3 years.
Conclusion: Early childhood caries is a serious problem predominantly affecting male children. The association of the type of feeding with the presence of caries did not prove to be statistically significant. The early and rapid caries development seen in these children reinforces the need for early caries examination and initiation of preventive programs.

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Clinical and Reported Adverse Effects of Orthodontic Treatment; A Short Term Study.

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Objectives: To assess the deleterious effects of brackets and wires used for fixed orthodonic appliances as reported by patients and examined clinically.
Methods: This study was carried out at both Princess Haya and Prince Rashid Hospitals during the period of January 2009 to January 2010. 85 patients (30 males, 55 females with a mean age of 12.8 years) were treated with full bonded fixed metallic brackets and banded appliances. Preoperative photographs, direct clinical examination and a standardized scale patient interview forms were completed. All patients were re-interviewed and re-examined at 1 month, 6 months, and 1 year intervals for Pain & Mobility, Soft Tissue Injury, Gingival & Plaque indices as well as for any reported Tempromandibular Joint Dysfunction symptoms or headache and other common adverse effects.
Results: Seventy percent of patients reported a score of 5 or above on the pain scale every visit. 45% of subjects had at least one soft tissue laceration during 1year treatment. Almost all patients had worsening gingival condition and plaque levels. Nickel or latex allergy was never noticed or reported. About 10% of patients complained of headache associated with TMJ clicking and pain. 3 patients discontinued treatment.
Conclusion: Orthodontic treatment has the potential to cause damage to hard and soft tissues. Thus, education and orientation about the risks-benefits associated with orthodontic treatment is essential for patients, parents as well as for us clinicians.

204
Effectiveness of an Essential Oil Mouth Rinse in Improving Oral Health in Orthodontic Patients

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Objectives: To study the added benefit of Listerine mouth rinse for orthodontic patients in maintaining proper oral health.
Methods: For the purpose of this study 50 patients who were undergoing Orthodontic treatment at Prince Zeid Bin Al-Hussein Hospital during the period 2007-2010 were randomly chosen. Patients within their first 6 months of orthodontic treatment were assigned either to the brushing + flossing (n=25) or brushing + flossing + Listerine (n=25) group. Initially, all of the participants received a prophylaxis and instructions on how to brush and floss. Measurements were recorded for the bleeding, gingival, and plaque indices (BI, MGI, and PI, respectively) that provided baseline values (T1). Subsequent measurements were taken at 3 months (T2) and 6 months (T3). Mean BI, MGI, and PI at T1, T2, and T3 were compared statistically between the groups using repeated measures analysis of variance. The significance level was set at P .05.
Results: The response profiles for the BI, MGI, and PI over time were significantly different between the two groups. Patients who had Listerine in their daily oral hygiene regimen exhibited significantly lower scores for all three indices at T2 and T3 than the patients who only brushed and flossed.
Conclusion: This study shows that use of Listerine mouth rinse can reduce the amount of plaque and gingivitis in patients undergoing orthodontic treatment. Adding Listerine to the standard oral hygiene regimen may be beneficial for orthodontic patients in maintaining proper oral health, thus reducing the likelihood that white spot lesions and gingivitis will develop.

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Lateral Facial Profile & Dental Malocclusion Relationship in Jordanian school children

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Objectives: To determine the relationship between dental malocclusion and lateral facial profile in 12-15 years old South Jordanian schoolchildren.
Methods: Eight hundred and ninety four children aged 12-15 years (342 males, 552 females), with no history of or under current orthodontic treatment, were fully examined clinically using an examination set (mouth mirror and metal ruler). A lateral Digital photograph was taken for each patient. Upper and lower alginate impressions in addition to a wax bite registration were made for all subjects, impressions were poured in the same day by dental technicians. British Standard Institute (BSI) and Angle's classification were used to determine incisor and molar relationships, respectively.
Results: Straight profile was significantly associated with Class I incisor relation (P =0.042), convex profile showed relation only with Class II Molar relation (P=0.032). On the other hand, a concave profile showed significant relation with both Class III Molar as well as Class III Incisor relation (P=0.047, P=0.038) respectively.
Conclusion: Facial profile shows a significant relation with dental malocclusion and thus helps clinicians identify that problem without difficulty.

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Sports Related Dental Trauma and Parents' Awareness to the Need for a Protective Measure

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Objectives: To determine the percentage of sports related dental trauma as opposed to other causes, to assess parents' knowledge and awareness regarding the need of their children to wear mouthguards as a protective measure during sport activities and finally to assess willingness of the children to wear mouthguards during these activities.
Patients and methods: This study was conducted at two Pediatric Dental Clinics in Prince Rashid Bin Al Hassan Hospital and Princess Aisha Medical Complex during the period of January 2007–January 2008. A total number of 102 children (75 males, 27 females with an age range of 7 -13 years) who sustained dental trauma due to various causes participated in this study. All participants had middle to low socio-economic background. 60 cases were collected from Prince Rashid Bin Al Hassan Hospital and 42 cases from Princess Aisha Medical Complex. Complete history and examination of the children were performed and filled in a due form by a qualified Pedodontist. Data related to parents awareness and knowledge regarding the need of their children to wear a protective mouthguard during sports activities and the willingness of the children to wear the mouthguard was collected as well.
Results: Thirty percent of children included in the sample sustained sports related dental trauma, mainly during football and cycling activities. The majority of parents (86.3%) were not aware of the availability of the mouthguard or its need as a protective measure during sports activity, although all parents accepted the idea of their children wearing it. On the other hand, 78.4% of the children were willing to wear the mouthguard as a protective measure during sports activity.

Conclusion: Almost one third of dental trauma is related to sports activities. Unfortunately, the majority of parents lack the knowledge and awareness regarding the need to wear mouthguards as a protective measure. Therefore, the education of the public about the significance of sports related dental injury and the measures necessary to prevent and manage dental trauma is essential.

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Prevalence of Maxillary and Mandibular Canine Impaction in Orthodontic Patients

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Objectives: 1. To investigate the prevalence of maxillary and mandibular canine impaction in orthodontic patients. 2. To find any gender differences in canine impaction.
Methods: This study was carried out at Princess Haya Al-Hussein Hospital during the period March-December 2009. One thousand five hundred seventy eight orthodontic patients with an age range of 13-25 years were included in this study. Patients were separated into two groups according to gender; Female group composed of 967 participants (61.3%) with a mean age of 15.4 years, and Male group composed of 611 participants (38.7%) with mean age of 15.9 years. Clinical screening was done for the whole sample. Orthopantographs and Vertex Occlusal X-ray films were obtained for cases with suspected canine(s) impaction. Prevalence of Maxillary and Mandibular canine impactions was calculated for both groups. In addition impacted canines were also compared with regards to their position and location.
Results: The prevalence of maxillary and mandibular canine impaction was 4.1 and 0.4 respectively. Maxillary canine impaction was found in 4.6% of females and 3.4% of males with male to female ratio of 1: 1.4. Sixty three percent of maxillary canine impaction were present unilaterally and 37% bilaterally, while 79% of them were palatally positioned. On the other hand, the prevalence of mandibular canine impaction was 0.3% in males and 0.5% in females with a male to female ratio of 1:1.7. Of these, 60% were present bilaterally and 40% were present unilaterally, while 60% of were buccally positioned.
Conclusion: The prevalence of maxillary canine impaction in orthodontic patients was ten folds that of mandibular canine impaction. Both maxillary and mandibular canine impactions were found more in females. In the maxilla, palatally positioned and unilateral canine impaction was the most common pattern, while in the mandible the most common pattern was bilateral and buccally positioned canine impaction.

Hall A1 Session 4
Maxillo-Facial Surgery and Implant Dentistry

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Bone Grafts and Substitutes in Implant Dentistry

Mohammed El-Maaytah
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Treatment of alveolar ridge deformities aim at reconstructing soft and hard tissues of the edentulous ridge. Different surgical techniques may be used to reconstruct lost ridge anatomy before tooth replacement. In cases of severe ridge defects, a staged or a combined approach may be appropriate. The graft materials can be categorized into four groups: autogenous bone, allografts (harvested from human cadavers), alloplasts (synthetic materials), and xenografts (grafts from a nonhuman species). This lecture provides an overview of the surgical technique, with emphasis on anatomic considerations, preoperative patient evaluation (clinical and radiographic), indications and contraindications to the procedure, and possible risks and complications.

209
Image-Guided Navigation for Treatment of Orbital Fractures

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Orbital fractures are treated using the guidance of computed tomography (CT) based surgical navigation. On a computer workstation, the fracture is reduced virtually by highlighting the unaffected orbit then mirroring the image within the preoperative multimodal CT data set. This treatment plan is then transferred to a navigation system. Fracture reduction is performed using surgical navigation according to the treatment plan.
Preoperative planning by mirroring and 3-D positioning of the fractured segment is performed easily and the intraoperative control of fracture reduction using surgical navigation is very helpful.
This new approach results in accurate, easy treatment planning with a high degree of fracture reduction accuracy. This presentation will highlight the benefit of surgical navigation in aiding orbital fractures reduction.

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Occlusal Considerations for Implant-Supported Prostheses

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Implants must be a consideration for every treatment plan as they provide considerable advantages over removable partial dentures. Improved support, a more stable occlusion, preservation of bone and simplification of the prosthesis are a few reasons why implants are the treatment of choice for missing teeth. However, unlike natural teeth, implants are ankylosed to the surrounding bone without an intervening periodontal ligament. While displacement of a tooth is non linear and complex, an implant deflects in a linear and elastic pattern and movement of the implant under load is dependent on elastic deformation of the bone. Techniques should be used to minimize excessive loading on implant supported restorations through proper diagnosis and treatment planning. The aim of this lecture is to demonstrate the role of occlusion in implant retained restorations.

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Cemento-Osseous Dysplasia

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Cemento-Osseous Dysplasia (COD) is a non-neoplastic process usually confined to the tooth-bearing areas of the jaws or edentulous alveolar bone. Several clinicopathological forms of this disease are recognized, including solitary, multiple, florid, and periapical subtypes. These lesions share the same histologic spectrum consisting of admixtures of bone and cementum-like material in a fibrous stroma, however, they differ primarily in their extent of jaw involvement. Our objective is to highlight the current protocol for management of this condition, including diagnostic methods, treatment modalities and prognostic features. We will also describe the case of a Cemento-Osseous Dysplasia diagnosed at the Periodontal Clinic / King Hussein Medical Centre.

Hall A2 Session 1
Pharmacy

212
Introduction to the day & welcoming: New Era of Pharmacy Practice at Royal Medical Services

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Pharmacy Practice and medicine management play crucial role in saving lives, restoring health, preventing disease, and dealing with products and services that directly affect health and well being of citizens. It's a holistic approach to patient care using a systematic management of medicine and partnership with other health care professionals.
Royal Medical Services (RMS) adopted new concepts of pharmacy practice by changing patterns of pharmacists work from supply and dispensing of medicine only to the patient focused care by strengthening

and optimizing of clinical pharmacy services in order to maximize drug efficacy, minimize drug toxicity and provide cost – effectiveness.
Introducing into practice the concept of individualized pharmaceutical care plan for providing consistent pharmaceutical care and documenting the outcomes and captures past and current events occurring in a dynamic patient care process provided in response to changing patient>s needs.
Implementation the rational use of drugs based on evidence based medicine guidelines and protocol use, applying unit dose system in KHMC, computerization of the refill prescription of monthly cards in all RMS hospitals.
RMS recently hold the first comprehensive exam in clinical and supply pharmacy for pharmacist finished their residency program for the first time in Jordan and the region proving the leading role of RMS, and emphasis on high level of training and qualification of pharmacists by sponsoring for master degrees and refreshment courses, and holding workshops for new attending pharmacists and introductory workshop for clinical pharmacy residents.
Finally, we are highly motivated to provide the highest standards of pharmacy care with increased emphasis on patient - focused care and looking for reducing health care costs.

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Physicians' knowledge, attitude and practice about management of medications in Ramadan in Jordan

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Objectives: To assess knowledge, attitude and practice of physicians in Jordan regarding medications management in Ramadan.
Methods: A self administered questionnaire was delivered by hand to a convenient sample of 300 physicians in the main cities of Jordan, Amman and Irbid. The questionnaire was divided into two sections: medication management knowledge section, and physicians' attitude and practice section. Collected data was coded and entered into Statistical Package for the Social Sciences® then Statistical Analysis System® databases for correlation analysis. The knowledge questions were scored, while attitude and practice answers were represented as frequencies.
Results: A total of 297 questionnaires were completed. The study found that physician's knowledge about management of medications in Ramadan was generally insufficient. Female physicians knew better than males, and fellows appeared most knowledgeable. Proper practice was best in consultants. Most of physicians' practice did go parallel to religion opinion in regards to what route of drug administration can nullify fasting, and in which disease conditions patients should not fast.
Conclusion: In general, the study revealed that there is a significant lack of knowledge among physicians about the proper management of medications in Ramadan. There is an obvious need to increase awareness and improve practice in this regard. Efforts should be directed towards improving undergraduate training and future academic research.

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Pharmacist Provided Direct Patient Care Services

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This podium presentation will present the basic concepts for expanded the pharmacist's role in providing healthcare services to patients directly. The pharmacy practice regulations in California and many other states allow the pharmacist to expand their professional role to include services such as administering immunizations, intra-muscular drug administration, monitoring patient's therapy, health screening services, basic physical assessment, as well as providing basic clinical laboratory services at their practice site. The major benefits of the pharmacist providing these Direct Patient Care Services are the increased accessibility for the patient, earlier recognition/detection of patients with potential significant morbidities (i.e. hypertension, diabetes), recognizing patients with Drug Induced Disease, and increasing referrals to physicians and other healthcare professionals.
The presentation will discuss each of the above services as well as the methods, including policy and procedure and protocol development, necessary for the development of pharmacist based Direct Patient Care Services. The speakers experience in providing these services will be discussed to provide guidelines and suggestions for implementation by other pharmacists.

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Clinical Pharmacist Role in the Management of Hypertension and Metabolic Syndrome for Optimum Treatment Outcomes in Jordan

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Objectives: To evaluate clinical pharmacists' role in the management of uncontrolled hypertensive and metabolic syndrome (MS) patients in Jordan. In addition, to evaluate the impact of pharmaceutical care services on patients' adherence to pharmacological and non-pharmacological therapy in achieving blood pressure (BP) goals and improved metabolic syndrome components.
Methods: DESIGN: single blinded randomized controlled 6 months follow up clinical study. SETTING: Family Medicine Clinic at Jordan University Hospital (JUH). PATIENTS: 303 patients with uncontrolled hypertension specified as higher BP readings than recommended goals by the Joint National Committee on prevention, detection, evaluation, and treatment of high blood pressure (JNCVII) at the time of enrollment and/or meeting National Cholesterol Education Program Adult Treatment Panel III (ATP III) criteria for metabolic syndrome. METHODOLOGY: patients were randomly allocated to an intervention or control arm 155 and 148 patients, respectively. Patients in both arms were followed up for 6 months. In the intervention arm patients were managed by physician-pharmacist team; the pharmacist provided proper pharmaceutical care education and counseling regarding BP and metabolic syndrome, encouraged drug therapy adherence and adapting healthier habits (diet, physical activity, smoking cessation, etc…). Patients' treatment related problems (TRP), therapeutic needs or complaints were identified and reported to physicians, and managed collaboratively by both pharmacist and physicians. In the control group patients received regular healthcare service provided only by physicians, and were not provided pharmaceutical care services or clinical pharmacists recommendations.
Results: 79.4% of patients in the intervention group achieved BP goals specified by JNCVII at the end of the study course compared to 65.6 % in the control groups ($p = 0.043$). Mean decline in systolic BP was 16.1± SD 14.6 mm Hg in the intervention arm and 10.6 ± SD 13.5 mmHg in the control arm ($p = 0.002$). Mean reduction in diastolic BP was 10.5 ± SD12.9 mmHg in the intervention arm and 7.17 ± SD 13.11 mmHg in the control arm ($p = 0.042$). The decrease in metabolic syndrome status among intervention group was 27.7%, compared to 7.4% increase in metabolic status among control group. All components of metabolic syndrome were improved through the duration of our study, but we failed to detect significant differences in the level of each component, except for Triglyceride (TG) levels ($p = 0.001$) and FBS ($p = 0.014$). As BP, TG and FBS were significantly improved to the specified goals, we were able to detect significant improvement in metabolic syndrome status between both study groups after 6 month ($p = 0.002$).
Conclusion: Based on our results we can conclude that Physician-clinical pharmacist teamwork improves the rate of blood pressure control in hypertensive patients and this will be probably reflected on other outcomes such as cardiovascular diseases

risks. Having pharmacists on health care teams have demonstrated improved health outcomes, patient quality of life, improved quality of health care and greater patient adherence/compliance to drug therapy or treatments goals. By implementing pharmaceutical care services to identify, monitor, and educate patients, incidence of metabolic syndrome and it's co-morbidities can be decreased which will help to reduce healthcare costs and ensure patients better quality of life. Health authorities in Jordan must embrace clinical pharmacy services and refocus its services to the provision of patient care, expand scope of pharmacy practice to include more advanced role in TRP assessment, drug therapy selection, patient counseling, and recognize the professional and personal contributions clinical pharmacists can make as an integrated part of the health team in Jordan.

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An integrated pharmaceutical care intervention for patients with type 2 diabetes

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Objectives: To evaluate, in a randomised, controlled trial, the impact of a clinical pharmacist-led pharmaceutical care intervention programme on a range of clinical and humanistic outcomes in patients with type 2 diabetes.
Methods: Patients attending an outpatient clinic for type 2 diabetes were randomly assigned to intervention and control groups. Intervention patients had face-to-face objective-directed medication and lifestyle counseling from a clinical pharmacist at baseline and at 6 months together with 8-weekly telephone assessments and provision of educational material periods while control patients received usual care provided by the clinic. A range of clinical and questionnaire data (see results section) were collected at baseline and at the 6 and 12 month assessments coded and entered into SPSS® software version 15 for statistical analysis. A p value of < 0.05 was considered statistically significant.
Results: A total of 123 patients participated in the study. The results indicated a significant reduction in HbA1c values (primary outcome) in the intervention group (median = 7.9%), when compared with patients in the control group, who had approximately constant HbA1c values (median = 8.4%) throughout the 12 month study. Compared with baseline values, intervention patients also showed significant improvements in fasting blood glucose, systolic and diastolic blood pressure, total cholesterol, LDL, diabetes knowledge, medication adherence, self-care activities and health-related quality of life, at the the 12 month assessment.
Conclusion: The enhanced patient outcomes as a result of the disease management program in the present study demonstrate the value of an enhanced clinical pharmacy service in achieving the desired therapeutic outcomes for type 2 diabetic patients.

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Title: Assessment of the awareness degree about the uses and side effects of antibiotics among the Jordanian population

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Objectives: To assess the general knowledge, beliefs and attitudes toward the use of antibiotics in Jordan.
Methods: Individuals referring to two major teaching hospitals in the north of Jordan were interviewed by a self administered validated questionnaire prepared by the research team.
Results: During the study period 1275 individuals were interviewed, 1091 individual returned a completed questionnaire. Only 20.1% of the participants stated that antibiotics are used for bacterial infections, while 61.9% of the participants thought that antibiotics are useful for viral infections. Middle aged participants and those with education beyond high school showed significantly higher knowledge scores about antibiotics use.
Conclusion: Prompt action is required to increase the population's awareness about antibiotics in order to reduce the rate of self medication and aid in reducing the rate of emergence of resistant bacterial strains.

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Royal Medical Services

Hall A2 Session 2
Pharmacy

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The Role and Importance of Health Economics In Developing Countries

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The aim of health economics is to improve the allocation of scarce healthcare resources. This need is probably greatest in developing countries, but health economics studies often lack impact because of data limitations, or because of the lack of skilled personnel. This presentation discusses what can be achieved by the use of health economics in developing countries and the ways in which the practical limitations can be overcome. In particular, it will discuss the development of guidelines for the conduct of economic evaluations of pharmaceuticals in middle-income countries and how these guidelines have been implemented.

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Pharmacist and Physician Collaborative Practice Programs in Managing Their Patient's Medication Therapy

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This podium presentation will discuss methods and benefits of pharmacists developing collaborative practice agreements with physicians. The complexity of modern medication therapy can result in treatment failures and/or patient developing severe adverse reactions. Therefore a collaborative practice approach can result in improved patient outcomes. This approach can also make a major impact on reducing the cost of healthcare in general.
California law and regulations have created an environment which has resulted in the development of practice standards that not only expand the pharmacist's role, but also create an environment that allows for the development of collaborative practice agreements between pharmacists and physicians to better manage their patients. The presentation will highlight the key issues/challenges, benefits, and processes in developing collaborative practice agreements. The significant benefits to the patient, physician, and the pharmacist will be discussed from the standpoint healthcare outcomes and cost management.

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Pregabalin Efficacy and Tolerability

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Objectives: To assess the analgesic efficacy and associated adverse events of pregabalin in patients with neuropathic pain. The source of medication was the free samples that have been provided by the company for evaluation
Methods: Neurologists and Endocrinologists at king Hussein Mdical Center prescribed Pregabalin for selected patients (no. =50) who were diagnosed to have neuropathic pain according to pre-formulated questionnaire that was developed by researchers. The majority of patients received Pregabalin 150mg as a starting dose, 300 mg as a maintenance dose for three months. then the magnitude of pain was assessed first after one week of treatment, if the patient had pain relief after

one week and maintained on treatment further assessment was performed at intervals of one, two and three months. Then for each patient the average score of pain relief was calculated (0=worst value, 10=best value).patients were also encouraged to report any adverse effect during treatment period.
Results: Out of 50 patients included, 17 patients terminated treatment during the first week either due to lack of efficacy (12%, n=6) or due to intolerable adverse effects (22%, n= 11). For the remaining patients the average score of pain relief was 2.8 ±1.2. The average score of pain reduction was higher among patients with diabetic neuropathy (3.4) than with other types of neuropathic pain (2.2). The most frequently reported adverse effects were dizziness, fatigue, somnolence, and gastrointestinal disturbances.
Conclusion: Pregabalin is effective in reducing diabetic neuropathy and to lesser extent other types of neuropathic pain. But intolerable adverse effects still a problem. Further studies comparing its efficacy and tolerability with other neuropathic treatment choices are needed.

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Chronic Stress-Induced Impairment of Learning and Memory is Prevented by Caffeine Administration

Karm Alzoubi PhD (Jordan)

Title: Chronic Stress-Induced Impairment of Learning and Memory is Prevented by Caffeine Administration

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Objectives: To investigate the combined effects of chronic caffeine treatment and psychosocial stress on hippocampus-dependent learning and memory measured in the radial arm water maze (RAWM) task
Methods: Chronic stress was induced using an intruder psychosocial stress model. Caffeine was administered in drinking water concurrently with stress. In the radial arm water maze (RAWM), rats were allowed the following: an acquisition phase of two blocks of 6 consecutive trials separated by a 5 min rest period, a short-term memory, and two long-term memory tests per day for several consecutive days or until the animal reaches days to criterion (DTC) in the 12th acquisition trial and in all memory tests. Days to criterion (DTC) are the number of days that animal takes to make zero error in two consecutive days. Groups were compared based on the number of errors per trial or test as well as on the days to criterion (DTC).
Results: On days 4 and 5, caffeine treated stressed animals made significantly fewer errors than untreated stressed animals in short-term memory and long-term memory tests. In addition, the number of errors made by the caffeine treated stressed animals was not different from that of the control or the caffeine only groups. Furthermore, days to criterion (DTC) value for caffeine treated stressed animals is significantly lower than that of untreated stressed animals and not different than those of control or caffeine only groups.
Conclusion: Therefore, our study shows that chronic caffeine administration prevents or attenuates chronic stress-induced impairment of hippocampus-dependent short-term and long-term memory.

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The influence of genetic polymorphism of CYP3A5 (1*/*3and*6) on tacrolimus serum concentration among Jordanian liver transplant patients

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Objectives: To evaluate the contribution of polymorphisms of the donor and recipient CYP3A5 gene on tacrolimus disposition in liver transplantation
Methods: Thirty liver transplant recipients

treated with tacrolimus and their donors were enrolled in this study. Tacrolimus dosage and blood trough concentration were investigated. Polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) analysis was applied to determine the CYP3A5 genotype gene.
Results: The results of the current study reveal that the concentration/dose (C/D) ratios in patients with (*1/*3) genotype donor were significantly lower than in patients with *3/*3 genotype donor. There was none significant influence of CYP3A5 genotype of liver recipients on tacrolimus dose requirements and concentration/dose (C/D) ratio.
Conclusion: The large interindividual variation of tacrolimus dose requirement is due to the CYP3A5 gene polymorphisms of donor rather than recipient in liver transplantation.

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Incidence of adverse drug reactions in-patients at Al-karak governmental hospital

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Objectives: To assess the incidence and impact of adverse drug reactions in Al-karak hospital in-patients, to identify the drugs most commonly involved in causing adverse drug reactions, and to assess the causality, severity and possibility of avoidability of.adverse drug reactions
Methods: The study was carried out on the Internal Medicine Department at Al-karak hospital, the main governmental hospital in Al-karak city, Jordan. All patients admitted to the study ward over a six-month period from June 2008 to December 2008 were assessed for adverse drug reactions by a daily ward visit. Suspected adverse drug reactions were recorded and then analyzed for causality, severity and possibility of avoidability.
Results: Thirty one of 400 patients (7.8%) suffered from one or more adverse drug reactions. Most adverse drug reactions (n=21, 67.7%) were classified as type A (Augmented) reactions. Causality assessment showed that 23 (74.2%) of the adverse drug reactions were defined as ''probably drug-related", while 8 (25.8%) were classified as ''possibly drug-related". Three (9.7%) of the reactions were assessed as ''definitely avoidable", whereas 6 (37.5%) were classified as ''possibly avoidable". One patient died during hospitalization and his death was contributed to an. adverse drug reaction.
Conclusion: adverse drug reactions are important cause of morbidity and mortality. Many of these reactions may be preventable. Measures are needed in order to detect, prevent these adverse reactions, and therefore reduce the burden caused by adverse drug reactions on the national health care system in Jordan and ultimately to improve patients safety.

Hall A2 Session 3
Pharmacy

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Novel Coprocessed Common excipients with Mg Silicate

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Different common excipients such as lactose, microcrystalline cellulose, mannitol, starch, and chitin suffer from various shortcomings making their coprocessing with another material may overcome these disadvantages. Amorphous Mg Silicate was prepared from reacting MgCl2 from Dead Sea with Na Silicate prepared from native silica in Jordan. Mg silicate was assayed and characterized. Mg Silicate was coprocessed using different methods such as precipitation, compaction, and granulation.
The compaction method was selected due to its suitability to industrial scale up in processing. The resulted excipient functions as single component additive. It acts as dry and wet binder in low and high strength tablets with super disintegrating properties and capable of forming compacts without the need of lubricants.
These excipients when used in solid dosage forms as single excipients showed compliance with current USP for Paracetamol, Spironolactone, Metronidiazole and Methyldopa.

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A New Range Of Blood Glucose Level For Controlling Stress Induced Hyperglycemia In Intensive Care Unit (ICU) Patients

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Objectives: To evaluate the impact of the blood glucose level control on the morbidity and mortality of intensive care unit patients. To evaluate controlling the stress induced hyperglycemia in ICU patients. And to evaluate the level of blood glucose control that is required to positively influence patient outcomes, combined with the lowest risk of adverse events.
Methods: A total of 50 patients who were considered to need intensive care for at least three days, were randomly assigned into two groups. The intervention group subjects were to undergo a glucose control protocol with insulin infusion titrated to maintain blood glucose level in a target range of 120-160 mg/dL; except septic patients, in whom the target was higher, 160-180 mg/dL. Patients in the second group (control group) were treated by a conventional approach with reduction of blood glucose level only if the level was markedly elevated (>200 mg/dL) to maintain blood glucose level in a target range of 180-200 mg/dL.
Results: After adjustment for baseline characteristics the 2 groups of patients were well matched, for age, sex, prevalence of diabetes mellitus, HbA1c value and distribution of diagnoses; the only significant difference was in the percentage of cardiovascular dysfunction, which was higher in the intervention group (p=0.047). After institution of the protocol, the mean blood glucose levels differed significantly between the two treatment groups during the study period (143.70±12.78 mg/dL in the intervention group versus 175.56±14.07 mg/dL in the control group (p<0.001). And patients in the intervention group received a larger mean insulin dose 28.32 ±16.38 units per day, vs. 14.60± 12.26 in the control group (p=0.001). The difference in mortality between the two treatment groups was not significant at 28 days (p=0.370) and at 60 days (p=0.555). No significant increase in hypoglycemia episodes was reported in our blood glucose level target. There was no significant difference in the development of new organ failure, new renal insufficiency, number of patients undergoing transfusion of packed red blood cells, use of antibiotics for more than 10 days, length of stay in the intensive care unit and length of stay in the hospital. It was noticed that the rates of positive blood cultures were lower in the interventional group (8%) than in the control group (32), (p=0.068). A significantly higher mortality rate was observed in medical intensive care unit than in surgical intensive care unit, at 28 days (p=0.015) and at 60 days (p=0.032).
Conclusion: The glucose management protocol resulted in significantly improved glycemic control and was not associated with increased rate of death or hypoglycemia. The intervention for glucose control lowered the rate of positive blood cultures and reduced the risk of septicemia. We cannot exclude the possibility that it may benefit some patients, surgical patients in particular. Further studies are needed to confirm these preliminary findings.

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Frequency and antimicrobial sensivity of pseudomonas aeruginosa in burn wound infection in Farah Centre for Rehabilitation, Jordan

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Objectives: To estimate pseudomonas aeruginosa frequency and antimicrobial sensitivity in Farah Centre for Rehabilitation.
Methods: Prospective study was carried out by using 2404 specimens: 1568- wound culture, 307 urine, 205 blood and 324 others from 404 patients during the period 2001- 2008. Bacterial culture was taken at 24hour, 72hour, and then every 3 days and was cultured to the antibiotic that the patient received. Antimicrobial sensitivity was determined using disk diffusion method, and data was entered and analyzed by using SPSS version (15).
Results: Out of 404 patients, 164 (40.6%) had pseudomonas. Out of 2397 specimens, 463(19.3%) were pseudomonas and out of 16 type of bacteria pseudomonas was the most frequent type (58%). The mean for the occurrence of pseudomonas was 7.46 days and (13.4%) occur in the first day. Amikacin was the most effective drug (51.6%), Ciprofloxacin (26.6%), Imipenem (18.8%), Piperacillin (15.6%), while the least sensitive was Gentamycin (4.7%), and (30.5%) have multiple resistant for all the antibiotics used.
Conclusion: pseudomonas aeruginosa is a clinical problem that start to predominate and need special attention in burn units.

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The Medicine Transparency Alliance, Process and Progress in Jordan

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The Medicine Transparency Alliance (MeTA) is an international multi-stakeholder initiative whose aim is to promote increased transparency in the supply of essential medicines, and ensure equitable access for low income people. MeTA's focus is strengthening countries capacity to collect, analyze, disseminate and use data on medicine quality, availability, pricing and use. This will help improve transparency and accountability around the way medicines are selected, regulated, procured, distributed, supplied and then prescribed to and used by patients.
Jordan was one of the seven countries that have pioneered work to increase transparency and accountability in medicines supply chains. Building on this, the UK Department for International Development (DFID), with World Health Organization (WHO) and the World Bank (WB), are carrying out the design, consultation and planning for a "Medicines Transparency Alliance" (MeTA).
MeTA Main Goals:
The establishment and functioning of an effective multi-stakeholder process, taking into account the key MeTA objectives of increased transparency and accountability.
Progress in incrementally placing new data on the price, quality and availability of medicines (including policies and practices) in the public domain.
Visits, reports and official agreement:
MeTA scoping visits to Jordan were conducted in March and November 2007
A report of the findings was sent to and endorsed by all stakeholders
A DFID / MeTA mission was conducted on 27 – 30 January 2008
A short mission memorandum was sent to the Ministry of Planning and International Cooperation (MOPIC) and the Minister of Health (MOH) on February 2008 along with an official MeTA proposal on February 15th as requested by MOPIC
MOPIC sent a letter of agreement to DFID on 8 May 2008 and the Council members was formed
MeTA official Launch in London was held on 15- 16 May 2008
Jordan MeTA Workplan was approved in March 2009
MeTA Launch was in May 2009
MeTA Forum was held in November 2009
Starting from approving the country workplan up until today the MeTA Council members are working on activities they listed in the country workplan
Jordan MeTA Council: The MeTA Council will serve as the main decision making body in Jordan and consists of stakeholders from Government, Private, and Civil Society Organizations.
The Council members split into three active Committees working towards the main country workplan objective which is to increase availability of essential medicines:
Committee 1 members are working on "Encouraging Best Practice and Improving Rational Drug Use of Medicines"
Committee 2 members are working on "Evidence Based Decision Making for the Rational Drug List"
Committee 3 members are working on "Capacity Building for the Civil Society Organizations on pharmaceutical policies and regulation, building their capacity in Communication
Hosting of the Secretariat:
The Minister of Health sent an official letter to the MOPIC approving the suggestion

that was mentioned in MeTA phase one proposal for Jordan to have the High Health Council host the MeTA National Secretariat. The High Health Council was created according to Law no. 9 of 1999; it is the supreme body that is tasked with drawing up general policy and strategy for the Jordanian health sector.

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The Immuno Modulatory Effect of Gemeifloxacin on Human Peripheral Mononuclear Blood Cells

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Objectives: To determine the immunomodulatory effect of Gemifloxacin on the production of transforming growth factor (TGF-β1) by peripheral human blood cells and to evaluate the anti-proliferative effect of Gemifloxacin on the human peripheral blood mononuclear cell (PBMC) in vitro.
Methods: Human peripheral blood mononuclear cells were isolated using Isolymph, the anti-proliferation effect of Gemifloxacin was evaluated using different stimuli (Pokeweed, Concanavalin A or by mixed lymphocyte culture). TGF-β1 quantitation by Enzyme-linked Immunosorbent Assay (ELISA) in the cell culture supernates stimulated with Pokeweed and mixed lymphocyte culture treated with different concentration of Gemifloxacin.
Results: peripheral blood mononuclear cell (PBMC) proliferation using mixed lymphocyte response was more inhibited at 50μg/mL Gemifloxacin. it had a significant inhibitory effect in peripheral blood mononuclear cell (PBMC) proliferation. It has been found that when using peripheral blood mononuclear cell (PBMC) stimulated with Pokeweed (2μg/mL), the significant inhibition has been started in 25 μg/mL concentration and it was increased by increasing the concentration to 50 μg/mL. However, when Concanavalin A (ConA) was used to enhance growth of PBMC, 5 μg/mL to 50 μg/mL Gemifloxacin concentrations showed significant anti-proliferative effect. Results of transforming growth factor (TGF-β1) showed a significant production at concentration of 25 μg/mL and 50 μg/mL Gemifloxacin in presence of Pokeweed. The production of transforming growth factor (TGF-β1) using MLR by ELISA showed a slight increase of transforming growth factor (TGF-β1) at all the Gemifloxacin concentrations but statistically insignificant.
Conclusion: Gemifloxacin has prominent anti-proliferative effect when using different proliferation stimuli on human peripheral blood mononuclear cell (PBMC). One possible mechanism for the immunosuppressive effect of Gemifloxacin is the increase in transforming growth factor (TGF-β1) secretion for the immune cells. This transforming growth factor (TGF-β1) has anti-proliferative effect on PBMC.

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The Influence of Dietary Intake of Dairy Products on Dysmenorrhea

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Objectives: To determine the frequency of dysmenorrhea and its associated symptoms amongst a number of adolescent females and to investigate the possible association between daily dairy products intake and dysmenorrhea.
Methods: A self-assessment questionnaire was completed by 127 university female students ages between 19 and 24 years. Participants gave information that include demographics, nature, type, and severity of pain associated with menstruation if any, management used to relief dysmenorrhea, associated symptoms, and a general assessment of dietary intake of dairy products.
Results: The prevalence of primary dysmenorrhea in the population studied was 87.4%, with the majority of participants pain (36.6%) started few days before and continued through the first two days of menstruation. 46.9% of students found to have severe dysmenorrhea. Abdominal bloating was the most frequently expressed symptom associated with dysmenorrhea amongst population studied. A significantly lower percentage of female students expressing dysmenorrhea and associated symptoms was found when their intakes of dairy products were three

or four servings per day as compared to participants who took none.
Conclusion: Primary dysmenorrhea is common in young women. The study clearly elucidates the relationship between low dietary intake of dairy products and the risk of dysmenorrhea.

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Highlighting The Main Needs In Promoting Appropriate Medication Use Among Children in Jordan

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Objectives: To examine children's knowledge, attitude and practice towards medication among a sample of elementary school students in Jordan.
Methods: A structured interviews were conducted with a randomized stratified sample of 200 fifth, sixth and seventh elementary school grades (10 - 12 years old). The questionnaire consisted of a mixture of multiple choice questions, pictograms and different sample dosage forms. All data were coded and entered stepwise into SPSS® then SAS® databases for statistical analysis.
Results: The study found that most of the children were able to answer knowledge questions about medication appropriate-use. More than half of the sample (54%) believed that medicines are not beneficial all nor most of the time. Adequate understanding levels of USP pictograms (mean score=17.61±0.17, out of 21), as well as their ability to differentiate between the different pharmaceutical dosage forms were considered satisfactory (mean score=6.42±0.03, out of 7).
Conclusion: In general, the study revealed that older children in Jordan have good knowledge but unsatisfactory attitude towards medication. This study found that children in Jordan were able to identify most of the selected pictograms and dosage forms easily and were able to describe the appropriate way of using them. Nevertheless, more effort should be directed towards increasing the awareness of appropriate medication use among children.

Hall A2 Session 4
Pharmacy

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Isolation of Streptococcus agalactiae from Uterine Tumors and Endometrial Hyperplasia. A Histopathological Examination and a Study on Virulence, and Antibiotic Susceptibility of Isolated S. agalactiae

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Objectives: To study the incidence, extent and level of virulence factors produced by Streptococcus agalactiae isolates and to describe their antibiotic susceptibility profile against 14 antibiotics.
Methods: Forty two uterine samples were collected from women age ranged (35 to 80 years), underwent Total Abdominal Hysterectomy(TAH)in Basrah/Iraq Maternity and Child Hospital due to continuous vaginal bleeding not responding to medical and hormonal treatment. Selective bacterial culture was carried out to isolate Streptococcus agalactiae, Histopathologic examination of tissues colonized by St. agalactiae was perfomed.
Results: S. agalactiae was isolated from six leiomyomas (The commonest benign tumor of the uterus) and two cases of endometrial hyperplasia. Virulence factors produced by isolates are:haemolysin, yellow pigmentation, sialic acid (antiphagocytosis material), capsule, and formation of biofilms in both neutral and acid media. Isolates of S. agalactiae under study were found resistant to 10 out of 14 antibiotics (100%).The present study has recorded for the first time, resistance of four isolates of S. agalactiae (50%) to Vancomycin. A section from endometrial hyperplasia stained with

modified Gram stain demonstrates S. agalactiae as diplococci or aggregates.
Conclusion: Recognition of S. agalactiae in cases of leiomyomas and endometrial hyperplasia for the first time in uterine samples in Basrah/Iraq. Histopathologic examination revealed adherence of group B streptococci (GBS) and their invasion into tissue leading to the true depiction of pathogenesis of group B streptococci (GBS) infection. Resistance of four isolates (50%) to Vancomycin is worrisome from the clinical point of view, as these isolates may become a potential source for transmission of Vancomycin resistance to gram-positive species found in the vaginal and rectal sites.

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Interaction of Metoprolol succinate with coating materials in MR tablets

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Objectives: Metoprolol is a cardioselective betablockerusedmainlyforthemanagement of hypertension, angina pectoris, cardiac arrhythmias and myocardial infarction. Succinate salt replaced the tartrate salt in modified release (MR) dosage forms. It was noted, during development of metoprolol succinate MR coated tablets, that there is some physical changes during storage. The changes observed were color variation and adherence of tablets to each other under accelerated stability conditions. These defects might be due to migration of drug from core to coat or vise versa. These observations were investigated in this study.
Methods: Preparation of free films of drug/polymer as well as insitue coating of metoprolol succinate tablets. Investigation of both preparations using different characterization techniques (NMR FTIR, DSC and X-Ray diffraction) and dissolution to study effect of such interaction on drug release.
Results: It was noted, during development of metoprolol succinate MR coated tablets, that there is some physical changes during storage. The changes observed were color variation and adherence of tablets to each other under accelerated stability conditions. These observations were investigated in this study. Study of drug release and other charecterization methods are in process.
Conclusion: Interaction of drug-excipient in certain conditions is serious and may affect drug release from dosage forms and, hence, its bioavailability. The results of this study might dectates change of coating material or induce a subcoating material to serarate coat from core.

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Warehouse and distribution system: On-Shelf availability and inventory management enabling high performance

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Objectives: To study when the availability problem is spotted, buyers pump up the volume of product and flood the store with supply. The end result: stores get too much product leading to problems in stocking, shelving and inventory management. In Royal Medical Services warehouses we need to develop an approach aimed at breaking the boom and bust cycles inherent in inventory management and on - shelf stocking. We need to innovate an approach helps our warehouses to achieve high performance: minimizing inventory while maximizing the on-shelf availability.
Methods: By analyzing inventory management and the supporting supply chain with a relentless focus starting at the store shelf-back . We begin with a diagnosis that goes from empty, to in-store operation, through to the extended supply chain and back to the head office to identify the root cause of stock problems.
Warehousing and Distribution covers all activities of procuring, holding, supplying or exporting medicinal products, apart from supplying medicinal products to the public .
Results: In RMS warehouses of drug store, struggled to maintain optimal on-shelf availability for key- product. The immediate targets were to achieve 95% on -shelf availability for a defined set of key lines. We must work from the shelf-back , looking at all aspects of in-store and supply chain operation. We implement proven and customized processes, and systems in four key areas that help retailers create high performance inventory management and on –shelf availability
Customer and store offer
- Integrated planning forecasting and replenishment
- Physical supply chain operations
- Store operation

Conclusion: Poor on- shelf availability translate into poor profit, but RMS is a non-profit organization, and the main goal is the customer in which we care (the patient), we must help retailers strike a delicate balance, minimize inventory , and maximize availability we must start from the shelf and work back. The end result; satisfied customers, increased profit and progress toward high performance.
High-performance retailing enables fast and sustainable value creation with optimization tools and best practices that leverage retailers data. From demand generation to demand fulfillment, from supplier to customer management , retailers can supply high performance retailing approaches to achieve quick and sustainable measurable results and improve to overall business performance .

Hall B Session 1
Immunology

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Immunity- Strategic Defence of Self

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Our knowledge of how the Immune System functions has evolved very slowly, with elucidation often of a single aspect of defence being explored for years without an understanding of how it interacted with other defences. Intellectual curiosity and discussion, often with disagreements, plus key ideas from key researchers over the past two hundred years gave the study of immunology the step by step concepts and impetus to arrive at our current understanding of immune defences. In contrast, the immune system has evolved over aeons, and continues to rapidly evolve through processes of Darwinian-like selection, to defend against external and internal threats. The earliest mechanisms mirrored the simple needs of simple organisms but these inherited innate defences had to evolve rapidly and with complexity as the threats from microbes grew much faster. Specific, adaptive immune defences with the capacity for memory arose very late in evolution with the vertebrates, but these have dramatically altered the chances of long term survival of our species.

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Pediatric SLE: Similarities and Differences from Adult SLE

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(The abstract will be published online)

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Immunology and Disease

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Clinical Immunology is a medical specialty that deals with disorders of immune function. The complexity of the immune response, with its many components and often overlapping, redundant, pathways for effector mechanisms allows it to meet diverse challenges throughout the individual's life. When we deal appropriately and effectively with pathogens and threats such as malignancy we are not aware of the immune system at all. However, in the face of intrinsic failures of immunity, or aberrant or overactive responses to perceived or real threats, the outcome is clinical disease which may interface with other medical specialties. Immunological disease may be exquisitely focussed on a single body system or it may be seen as a systemic disorder. It may involve innate or adaptive immune systems, or both. It can also be very subtle and difficult to classify and understand. The spectrum of immunologically mediated disease includes primary and secondary immunodeficiency, autoimmunity and allergy.

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Eosinophilic Esophagitis, the New Epidemic

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Epidemiology: 1 in 10,000 in the pediatric population; Prevalence is increasing
Pathogenesis: Atopy in 80%. Food vs inhalant allergens
Diagnosis: Clinical symptoms: Vary with age: Infants and young children: Failure to thrive, vomiting, Adolescents: dysphagia, food impaction. **Endoscopic Findings:** Normal in 20-30%, Furrowing, trachealization, eosinophilic abscesses. **Histopathology:** Eosinophilic infiltration: ≥ 24 eosinophils/HPF, Hyperplasia of the Lamina Propria. **Treatment:** Dietary elimination: Elemental diet, Allergy skin tests, blood test and patch tests not helpful in identifying specific food allergens.
Topical corticosteroids: Swallowed inhaled corticosteroids, swallowed viscous budesonide. Anti-Il5.

Hall B Session 2
Rheumatology & Immunology

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Calcinosis of The Skin: A Neglected Sign Of Disease And Disability

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Calcinosis cutis is the cutaneous deposition of calcium salts. Historically, it has been divided:
1-A dystrophic variety, when the calcium salts are deposited in damaged or degenerate tissue.
2-A metastatic variety, which is less common, and associated with elevated serum calcium or phosphate or both.
3-An idiopathic variety, in which the pathogenetic mechanism is not known.
Dystrophic calcification includes:
- Widespread large deposits (calcinosis universalis), which occur in dermatomyositis and rarely in lupus.
- A few small deposits (calcinosis circumscripta), which occur in scleroderma
- Other rare causes: burn scars, acne scars, keloids, injection sites, a violin pressure point, Ehlers-Danlos syndrome and others.

Metastatic calcification occurs in patients with hypercalcaemia from any cause. The deposits are usually found in the deep dermis or subcutaneous tissue particularly in the flexural areas, abdomen and the medial aspects of the thighs. Calcific uraemic arteriolopathy or calciphylaxis. This disorder occurs most often in patients with end-stage renal disease who are undergoing dialysis or who have recently received a kidney transplant. A similar process has been reported in association with primary hyperparathyroidism, alcohol-related cirrhosis, and metastatic breast cancer. It is rare, often fatal condition associated with progressive cutaneous necrosis and ulceration accompanied by widespread vascular calcification and thrombosis.
Idiopathic calcification includes: tumoral calcinosis, idiopathic scrotal calcinosis, auricular calcinosis, infantile calcinosis of the heel, and others.
Calcification of the blood vessels may occur in the metastatic and dystrophic calcification varieties.

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Atopic Dermatitis: Pearls and Pitfalls

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Pathogenesis: Fillagrin gene defects
Atopy: Food allergy, Environmental allergy
Treatment: Skin care. Topical anti-inflammatory Rx: (corticosteroids, calcineurin inhibitors)
Systemic antii-inflammatory Rx: (Corticosteroids, Cyclosporine) Biologics: Anti-IgE, Anti-Il-5

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Chronic Urticaria and Angioedema: Do we understand its cause and How to Treat it?

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Chronic urticaria occurs when cutaneous mast cells are activated to secrete histamine along with other vasoactive and inflammatory mediators. Although acute urticaria is often associated with the allergen:IgE:FcεRI pathway, chronic urticaria more often is caused by autoimmunity. IgG anti-FcεRIα autoantibody is the best characterized pathogenic mechanism. This seminar will review the pathophysiology and treatment of this disorder.

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Food Allergy Diagnosis and Management

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Definition: IgE vs non IgE-mediated
Epidemiology: 6-8% in the pediatric age group; milk, egg, peanut, wheat, soy, tree nuts, seafood. 2% in the adult population; peanut, tree nuts, seafood.
Clinical Presentation: Acute: anaphylaxis, Chronic: Atopic Dermatitis
Diagnosis: Allergy skin testing, Immunocap blood testing, Food challenge, Linear vs conformational epitope
Prognosis: Milk, egg outgrown in 80%, Peanut, tree nuts, seafood outgrown in 20%
Prevention: To feed or not to feed in early infancy

Hall B Session 3
Rheumatology & Immunology

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Diagnostic Immunopathology

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Diagnosis and monitoring of disease progress or of treatment management are fundamental services offered by the immunology laboratory. The ranges of tests offered differ between laboratories but in general they are designed to measure immune function to determine whether an abnormality is present. Tests may look at body fluids for specific analytes that are markers of disease or at cellular components of blood to assess functional aspects of immunity. Platforms used may be automated and some tests may require a high degree of manual skill. Many of the parameters required for diagnosis have wide normal ranges and an important role for an immunopathologist is to interpret results correctly, often in consultation with the clinician who requests the test. As in all medical laboratories, maintenance of a quality management system for producing reproducible and accurate test results is a must and Laboratory Accreditation in Pathology is a necessary measure of good practice standards.

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Hypereosinophilic Syndrome: a multi-subspecialty disease.

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Patients with hypereosinophilic syndrome (HES) vary considerably in their clinical presentation with regard to the severity and pattern of end-organ involvement. Clinical manifestations range from nonspecific symptoms to life-threatening, multisystem damage caused by eosinophil infiltration and local release of proinflammatory mediators and toxic granule products from these invading cells. The primary objective of treatment is to reduce blood and tissue eosinophilia and prevent eosinophil-mediated tissue damage as safely as possible. This seminar will review HES and the available treatments, and then focus on the anti-IL-5 monoclonal antibody.

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Treating Osteoarthritic Pain: What Are The Options?

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Over the last 10 years, several guidelines have been published for the treatment of osteoarthritis (OA). In 2000 the American College of Rheumatology published its management guidelines for management of patients with OA of the hips and the knees. The European guidelines (EULAR) followed and more recently the National Institute of National Excellence (NICE) in the UK and Osteoarthritis Research Society International (OARSI) guidelines were published in 2008. Based on a published systematic search of clinical guidelines and systematic reviews, twenty six interventions recommended for the treatment of knee pain in older adults in primary care have been identified. For example, the NICE guideline lists five interventions regarded as "core treatments" for osteoarthritis of the knee: paracetamol; patient education and information; exercises; weight loss (if the patient is overweight); and topical non-steroidal anti-inflammatory drugs (NSAIDs). The guideline lists another 14 interventions, ranging from those that are safe (such as alterations to footwear or

local heat and cold), to those that also are potentially harmful (such as oral NSAIDs, opioids, and surgery).
Evidence that interventions recommended as core treatment for knee pain in older adults are underused, in particular, exercise, weight loss and the provision of written information. There appeared to be early reliance on pharmacological treatments with underuse of nonpharmacological interventions in early treatment choices.

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Systemic Anaphylaxis: Under-Diagnosed and Under-Treated.
Lawrence B. Schwartz MD (USA)
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Systemic anaphylaxis, a form of immediate hypersensitivity, arises when mast cells and possibly basophils are provoked to secrete mediators with potent vasoactive and smooth muscle contractile activities that evoke a systemic response. Although mast cells in any organ system may be involved, depending on the distribution of the instigating stimulus, the principal targets are the cardiovascular, cutaneous, respiratory, and gastrointestinal systems, sites where mast cells are most abundant. Systemic anaphylaxis typically occurs when these cells are activated by allergen that binds IgE (classical immediate hypersensitivity), but also can occur by alternative pathways. This seminar will review various aspects of the epidemiology, pathobiology, diagnosis and treatment of anaphylaxis.

Hall C Session 1
Gastroenterology

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The Evolution of Small Bowel Endoscopy
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This talk will provide an overview of how small bowel endoscopy has evolved (both capsule endoscopy and enteroscopy) and established itself in current clinical practice. In addition, I will provide the evidence base for using these novel techniques by comparison to small bowel radiology as well as outlining the indications, complications and progress being made in this field.

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Coeliac Disease a Global Epidemic!
David Sanders MD (UK)
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This talk will describe the prevalence of coeliac disease internationally with particular relevance to the Middle East. An update on diagnostic strategies, case-finding for coeliac disease, the role of serological markers and duodenal biopsy will all be delineated. Finally I will talk about the subsequent management of patients with persisting symptoms.

248
Update on Autoimmune Hepatitis
Mohammed Karajeh MD (UK)
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This talk will provide an overview of the epidemiology, diagnosis and treatment autoimmune hepatitis. I will also present "unique" data from our unit on long-term outcome of patients with autoimmune hepatitis.

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IBS How Far do you Investigate?
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This talk will allow the delegate to understand current diagnostic strategies in IBS. A description of investigative pathways for patients who present with these symptoms will be provided. Novel tests which may allow the clinician to recognise disease groups that overlap with IBS type symptoms will also be discussed.

Hall C Session 2
Nephrology

250
Adequacy of Peritoneal Dialysis: The Limitations of Small Solute Kinetics
Joanne Bargman MD (Canada)
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This lecture will discuss the evolution of the measurement of adequacy of dialysis, with particular reference to peritoneal dialysis. An argument will be made that small solute kinetic indices, such as Kt/V urea, do not properly measure adequacy of dialysis.

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Cardiogenic Shock, Mechanical Complications and Hemodynamic Support
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Goal:
- To discuss the pathogenesis and definition of cardiogenic shock.
- To recognize the cardiogenic shock as early as possible and to outline the differential diagnosis in these patients.
- To understand the treatment modality and the prognosis in patients with cardiogenic shock.
- To understand the importance and the rational therapy for Hemodynamic support in cardiogenic shock.
- To review the ACC/AHA Guidelines for PCI and IABP in Patients with Cardiogenic Shock.

252
The Treatment of Lupus Nephritis: How Did Cyclophosphamide Become the Treatment of Choice?
Joanne Bargman MD (Canada)
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We will review the important principles of management of severe lupus nephritis and the seminal papers that examined drug therapy in this disorder. It will be shown that there is no good evidence for the superiority of cyclophosphamide compared to other drug regimens.

253
An Approach to the Classification of Primary Glomerulonephritis
Joanne Bargman MD (Canada)
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The nomenclature for primary glomerulonephritis is confusing and has led to a poor understanding of the classification and treatment of this group of diseases. This lecture, intended for a general internal medicine audience, will review the classification of the primary glomerulonephritidies and briefly touch on treatment options.

Hall C Session 3
Nephrology

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Difficult Ascites
Mohammed Karajeh MD (UK)
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This talk will focus on management of refractory ascites in patients with chronic liver disease including the role of TIPS (transjugular intrahepatic portosystemic shunt). I will also outline the diagnosis and management of spontaneous bacterial peritonitis, one of the most serious and devastating complication of ascites if left untreated.

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The Safety and Efficacy of Cyanoacrylate Injection in Treatment of Gastric Variceal Bleeding: KHMC 2 Years Experience
Abtan Al-Talafeh MD, Imad Ghazzawi MD, Yousef AL-Ajlouni MD,*
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Lina Arabeyyat RT
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Objectives: To assess the efficacy and safety cyanoacrylate injection in patients admitted to the gastrointestinal department with upper gastrointestinal bleeding secondary to gastric varices.
Methods: A prospective study in patients who underwent cyanoacrylate-lipiodol solution (concentration of 2:1) injection for gastric variceal bleeding, which was performed during a period of two years (2007-2009). Study end point was variceal obliteration.
Results: Total number was fifty naive patients who presented to our department either via the emergency department, or referred from other hospitals. There were thirty two males and eighteen females with a mean age of 46.2 years. Immediate haemostasis was achieved in 96% of the patients. 80% of the patients needed more than one session after initial successful first intervention. Eleven patients (22%) had

active bleeding at time of endoscopy, the remainder had history of gastrointesinal bleeding without stigmata of bleeding from another sources as esophageal varices or peptic ulcer. Cyanoacrylate injection was successfully performed in all patients .The mean follow up period ranging from 2-12 months. Permanent gastric variceal obliteration was achieved in 86% (43/50).mean number of sessions to achieve obliteration was two. Maximum amount of injections in one session was five. Total gastric variceal obliteration was achieved with single session in eight patients (16%). Overall mortality rate from bleeding happened in two cases (4%). Advanced age, Child-Pugh score and variceal size were considered predictor factors for mortality. No major side effects were observed apart from two patients who developed post injection ulcer. Other side effects include transient abdominal discomfort in 24% (12 patients), no fever was noted.

Conclusion: Variceal bleeding management needs team work with experienced endoscopist, our results confirm the safety and effectiveness of histoacryl injection in treatment of Gastric variceal bleeding.

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Effect of lifestyle Adaptations on Nocturnal Acid Reflux in Patients with Barrett's Oesphagus

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Objectives: Pathological acid reflux persists in many patients with BO despite symptom control with PPIs. Nocturnal or supine reflux tends to be pronounced and is particularly injurious. Lifestyle measures to reduce reflux have not previously been studied in BO.

Methods: Patients with BO had oesophageal manometry and 48 hour pH studies. pH studies were carried out with instructions on the first day to either (i) eat a standardised dinner more than 3 hours before bedtime and sleep with the head of the bed raised by 20 cm (eating late, sleeping flat regimen - LF) or (ii) eat the meal within 2 hours before bedtime and sleep flat (eating early, sleeping raised regimen -ER). The instructions were reversed for the second study day. Patients continued on their usual acid suppression medication. Paired t test was used for statistical analysis

Results: Fifteen patients (13M:2F) were recruited; mean age 58.4 years, mean BO length 3.1cm. Hiatus hernia was present in 8 (53%). Eleven had no or minimal reflux symptoms. There was oesophageal dysmotility in 4 (27%). There was no difference in total acid exposure time (%AET) under the two study regimens. For supine reflux, mean %AET was 17.5% for the LF regimen and 12.4% for the ER regimen (p=0.25). Duration of longest supine reflux was 27.3min for LF versus 20.1min for ER (p=0.45). The number of long supine reflux episodes was 3 for LF and 1.7 for ER (p=0.06).

Conclusion: All the patients with BO in our study had persistent pathological reflux despite acid suppression treatment and minimal or no reflux symptoms. Eating early and sleeping with the head of the bed raised resulted in reduced supine reflux parameters but the differences did not reach statistical significance. Recruitment of a larger patient cohort may enable these findings to be confirmed.

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Upper Gastrointestinal Service at Prince Hamzah Hospital - Ministry of Health

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Objectives: To analyze the Indications and findings of /for upper endoscopy in patients referred to Prince Hamzeh Hospital which is the largest referral hospital in the eastern part of Amman, Ministry of Health.

Methods: we analyzed all the records of patients who were referred for gastroenterology unit at prince Hamzeh Hospital for the Period of 3rd of August-3rd of Feb. 2009.

Results: Total of five hundred and forty two procedures was performed on four hundred and seventy three patients. There were two hundred and eighty seven males and one hundred and eighty six females with the age distribution from 11-100 years. The indications were epigastric pain in seventy three males and seventy four females; upper gastrointestinal bleeding in eighty three males and forty five females; dyspepsia in eighteen males and thirty one females and vomiting in seventeen males and twenty two females with other indications in different numbers. The finding's were: gastritis with/with out erosions in eighty eight males and sixty nine females; doudenitis in seventy eight males and fifty two females; esophageal ulcer +/- esophagitis were seen in fifty five males and twenty nine females ; and duodenal ulcer was the diagnosis in thirty two males and twenty females, with various other diagnosis in different frequencies.

Conclusion: Upper gastrointestinal endoscopy is an important service to be available at different hospitals. At Prince Hamzeh Hospital; it is highly utilized with significant findings and therapeutic uses.

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The Consequences of Diarrhea Occurring During Chemotherapy for Colorectal Cancer

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Objectives: To analyze the impact of all grades of diarrhea on clinical decisions for patients receiving treatment for colorectal cancer by characterizing the diarrhea that occurred, quantifying changes in chemotherapy treatment, identifying methods to treat diarrhea, and determining the economic impact

Methods: We retrospectively reviewed the treatment of fifty consecutive patients with colorectal cancer who experienced diarrhea during the course of chemotherapy. The diarrhea was documented in the progress notes and graded according to National Cancer Institute Common Toxicity Criteria. Changes in chemotherapy treatment and resource utilization associated with diarrhea were recorded

Results: Fifty patients received three hundred and thirty six chemotherapy cycles, of which 35% ± 2% were associated with diarrhea. Approximately 52% of patients experienced diarrhea of grades 3 or 4, and fifty six patients underwent sixty six modifications in their chemotherapy treatment, such as dose reductions, delays in therapy, discontinuations of therapy, or multiple changes. Thirty-one patients consumed resources beyond oral antidiarrheals to control diarrhea: fourteen patients received emergency outpatient treatment, sixteen patients were hospitalized, and eleven patients received intravenous fluids.

Conclusion: Diarrhea was a significant consequence of colorectal chemotherapy, with the majority of patients experiencing grades three or four diarrhea. Even mild diarrhea of grades one and two was associated with changes in treatment in 11% of patients; thus, diarrhea of all grades should be recognized and treated appropriately to maintain full-dose chemotherapy.

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Significance of Gastric 18F-FDG Uptake in Patients Undergoing PET Scan: Influence of Pattern

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Objectives: to determine the clinical significance of increased 18F-FDG uptake in the stomach.

Methods: 193 consecutive patients investigated for the incidence of gastric 18F-FDG uptake. Patients with known gastric cancer were excluded. The pattern was categorized as diffuse or inhomogeneous or focal. The 18F-FDG uptake in the stomach was semiquantified using maximum standardized uptake value

(SUVmax). Confirmation was by endoscopy, histologically or by follow-up

Results: 18F-FDG uptake in the stomach was noted in 88 patients (45%). The pattern of uptake was diffuse in 32 patients, inhomogeneous in 48 patients and focal in 8 patients. Average SUVmax in patients with diffuse uptake was 2.4 (range: 1.1 to 8), 2.5 (range: 1.4 to 9) in patients with inhomogeneous uptake and was 5.6 (range: 3 to 8.7) in patients with focal uptake. Malignant findings were confirmed in 5 patients; 2 focal uptake (SUVmax 5.4 and 6), 2 inhomogeneous uptake (SUVmax 4.9 and 9) and one diffuse uptake (SUVmax 8). Benign pathologies were diagnosed in other 20 patients; 5 focal, 6 inhomogeneous and 9 diffuse. In the rest of patients, no abnormalities were recoded. Average SUVmax in the three groups were 6.7 in malignant lesions, 3.17 in benign lesions and 2.4 in noticeable uptake but no pathologies. SUVmax was significantly different between the three groups (P value < 0.05)

Conclusion: 18F-FDG uptake in the stomach is a common finding. Semiquantified analysis using SUVmax can increase the confidence of assessment of 18F-FDG uptake in the stomach. Pattern of 18F-FDG in the stomach is not a good predictor of malignancy, but still focal pattern is more suspicious.

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Optimal Cut Off Value of Waist Circumference to Predict Composite Cardiovascular Disease in Jordanian Cohort with Metabolic Syndrome

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Objectives: To evaluate the optimal cut off value of waist circumference that will predict Ischemic Heart Disease and Composite Cardiovascular Disease in a cohort of Jordanian subjects who fulfilled the criteria metabolic syndrome according to Adult Treatment Panel III (National Cholesterol Education Program)

Methods: In a cohort of three hundred and fifty eight (155 females: 203 males) patients with metabolic syndrome .We tried to establish the optimal cut off value of waist circumference that has the highest sensitivity and specificity to diagnose Ischemic Heart Disease and Composite Cardiovascular Disease (both Ischemic Heart Disease and or stroke).Using the Receiver Operating Characteristics curve and Youden's Index in both male and female group, we used this cut off value to predict Ischemic Heart Disease and Composite Cardiovascular Disease using Odds Ratio, Relative Risk and positive and negative predictive value.

Results: The Receiver Operator Characteristics, Area under Curve (AUC) for female group ≈0.576 (SE 0.065, 0.454-0.699). While for male group 0.537(SE± 0.6, 0.475 - 0.643). The optimal cut off value of waist circumference for female group is 106.5cm while for male is 107.5cm using the Youden's index (sensitivity – (1-specificity).The O.R and R.R showed that for female their cut off value was significant giving a PPV of 0.48 (95%C.I=0.3-0.66). and O.R =2.53(95%C.I =1.02-6.25),the RR=2.08(95%C.I=1.09-3.96) (p=0.0253). While for male this did not give statistical significant value ;the O.R =1.96(95% C.I 0.91-4.22) and RR=1.7(95%C.I0.98-2.94) p value 0.059.

Conclusion: In this study we established a cut off value of 106.5 cm for females and 107.5 for males that are optimal to diagnose composite cardiovascular disease in a cohort of patient with metabolic syndrome. This was significant for females but not for males. Further larger cross sectional studies are needed to establish cut off value for groups with and without metabolic syndrome.

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Spectrum of Glomerular Diseases at King Hussein Medical Center

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Objectives: To determine the histopathological patterns of glomerulonephritis according to the clinical presentation.

Methods: This is a retrospective analysis of light microscopy results of native kidney biopsies done during the period of January 1st, 2005 until December 31st, 2008. There were two hundred and seventy three native kidney biopsies performed during this period. Data were collected from the computer data base of Princess Iman Research and Laboratory Center, King Hussein Medical Center, Amman- Jordan, All biopsies were examined by our renal histopathologist.

Results: The most common indication was nephrotic syndrome and the most common cause of nephrotic syndrome in our patients was membranous glomerulonephritis. The main cause of subnephrotic proteinuria was minimal change disease and focal and segmental glomerulosclerosis. Membranoproliferative glomerulonephritis was the most frequent finding in patients presenting with microscopic hematuria. In acute nephritis the most common lesions were crescentic, diffuse proliferative and necrotizing glomerulonephritis. Acute tubular necrosis was the most common cause of acute kidney injury. Changes of end stage kidney disease were the most frequent findings in patient with chronic kidney disease. In patients with systemic lupus erythematosus with renal involvement, the most common lesion was class IV lupus nephritis.

Conclusion: Kidney biopsy is an extremely helpful investigation and it should be performed once indicated. There is a need for a national registry of kidney biopsies. The histopathological findings are similar to studies done in Jordan and in the neighboring countries.

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The Main Risk Factors Attributed to End-Stage Renal Disease among Patients on Hemodialysis at Prince Rashed Military Hospital

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Objectives: To determine the main risk factors related to the end stage-renal disease. among patients on hemodialysis at Prince Rashed Military Hospital. Irbid-Jordan

Methods: Between May 2008 and August 2009, 131 patients with end stage-renal disease, were on dialysis and 131-control group from those attending the Internal Medicine Department for various reasons other than dialysis unit at Prince Rashed Hospital in the North of Jordan were included in this study. The Hospital medical records for both groups were retrospectively reviewed for the presence of Diabetes, hypertension, duration of Diabetes and hypertension, glycosylated hemoglobin, serum creatinin level, and other risk factors attributed to end stage-renal disease.Frequency,percentages, standard deviation were used to describe the study variables.

Results: The duration of Diabetes and hypertension in the end stage-renal disease group was 7.4 ± 4.7 and 4.9 ± 2.8 years, respectively, which was significantly higher than the duration of Diabetes and hypertension in the control group (5.1 ± 2.2 and 4.3 ± 2.5) years, respectively. The glycosylated hemoglobin and serum,creatinin level on dialysis group were also significantly higher than in the control group (7.6 ± 1.9% and 1.6 ± 1.1 mg/dl), compared to (6.2 ± 2.6% and 1.6 ± 1.1 mg/dl,) respectively. The main risk factors attributed to the end stage-renal disease were as follows: 22.7% diabetes, 15.6% hypertension, 9.4% glomerulonephritis, 3.9% obstructive uropathy, 2.8% reflux uropathy, 1.7% polycystic kidney diseases and 16.6% for other risk factors

Conclusion: Continuous blood sugar and blood pressure control to reduce the frequency of these risk factors and improve care among patients with Diabetes and hypertension are needed to sustain and improve trends in the end stage-renal disease incidence.

Hall D Session 1
Ophthalmology

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Anterior Uveitis
Teifi James MD (UK)
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Mr Teifi James will explain the modern management of anterior uveitis – iritis and iridocylitis He will discuss aetiology, diagnosis and the different presentations, the different treatment options, and common pitfalls. The immediate and late complications will be explained and strategies for managing these problems will be presented. After this lecture, the audience will be able to develop a strategy for managing this common but often serious condition. Mr James will explain the "Halifax Self Starter" treatment plan for patients with recurrent acute anterior uveitis. Topics, which will be covered, include anterior uveitis in children, Fuch's uveitis syndrome and iritis associated with the seronegative arthritides.

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Lamellar and Plastic Tech niques for Restoring Corneal Shape
Sheraz Daya MD (UK)
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Through improved skill and technology, lamellar techniques are becoming more common in corneal surgery. This talk will discuss some novel techniques in managing peripheral ectasia, including Pellucid marginal degeneration and advanced host ectasia years after penetrating keratoplasty for keratoconus. Corneal tattooing techniques will also be discussed.

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Posterior and Intermediate Uveitis
Teifi James MD (UK)
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Mr Teifi James will present data on the management of these conditions based on his experiences with over 1000 patients with diverse disease presentations and manifestations. Topics to be discussed will include, Intermediate uveitis – presentations and diagnoses including sarcoidosis and multiple sclerosis. Posterior uveitis including ocular tuberculosis, infectious uveitis, ocular lymphoma and masquerade syndromes and white dot syndromes. Mr James will discuss treatment strategies including immune suppression treatment and the role of monoclonal antibody therapy in patients with these challenging illnesses. He will explain his techniques for dealing with the complications of these diseases.

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Inflammatory and Infective Conditions following Corneal Refractive Surgery
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Although infective complications in refractive surgery are rare, they do require a specific and systematic approach in terms of prevention, diagnosis and management. Rarer organisms such as Mycobacteria are also seen in this context. An overview of inflammatory and infective complications of corneal refractive surgery will be described including a proposed approach to management.

Hall D Session 2
Ophthalmology

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Limbal Stem Cell Transplantation
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This talk will describe the aetiology of limbal stem cell deficiency and options for management from medical options through to surgical procedures. The field of ocular surface rehabilitation is complex and includes management of a number of variables.

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Scleritis
Teifi James MD (UK)
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Scleritis is relatively uncommon in Britain. However it is a sight threatening disease and is often associated with life-threatening systemic illness. Mr Teifi James will discuss the different presentations of scleritis, what to treat, when to treat and how to treat. He will discuss the management of scleritis associated Wegener's Granulomatosis and Rheumatoid Arthritis. Treatment options including pulsed intravenous cyclophosphamide and rituximab anti CD20 monoclonal antibody therapy will be presented and explained.

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Therapeutic Applications of the Femtosecond LASER
Sheraz Daya MD (UK)
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This presentation will discuss therapeutic and non-refractive uses of the Femtosecond laser which will include implantation of intracorneal rings, lamellar and penetrating keratoplasty.

Hall D Session 3
Pediatrics Oncology

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Current Concepts and Results in the Treatment of Solid Tumors in Children and Adolescents
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Cancer in children and adolescents is rare. The annual incidence in industrialised countries is about 14 in 100.000 under the age of 15 years. In Germany, cancer is newly diagnosed in about 1800 children per year. The most frequent types of cancer are leukemias (about 35%) and malignant lymphomas (about 15%). Thus, solid tumors constitute about 50% of all cancers in childhood and adolescence. The majority of tumors in children are with approximately 20% tumors of the central nervous system. Brain tumors represent a very particular challenge in pediatric oncology. Other tumor entities are tumors of the peripheral nervous system (neuroblastomas, 8-10%), the kidneys (nephroblastomas, 6-8%), soft tissue sarcomas (in the majority rhabdomyosarcomas, 5-6%), and bone tumors (osteosarcomas and Ewing sarcomas, 5-6%). In addition, there are some rare other tumors.
The general treatment concept is neoadjuvant therapy. Almost all tumors in children are highly malignant, i.e., they tend to metastasize early and have therefore to be regarded as "systemic" diseases. Neoadjuvant therapy starts with multiagent chemotherapy, and surgery and/or radiation therapy are postponed by several weeks depending on the tumor entity. Chemotherapy is continued after surgery or already during radiation therapy in order to consolidate the therapeutic effect.
Chemotherapy prior to local therapy offers several advantages: 1. mostly tumors show a good response to chemotherapy which leads to tumor shrinking with the formation of a pseudocapsule; 2. micrometastases are immediately attacked and may even be completely eliminated; 3. malignant cells in the tumor are destroyed or devitalized by chemotherapy; 4. chemotherapy prior to local therapy offers the opportunity to do less mutilating, cosmetically and functionally favorable surgery and to reduce the risk of metastasizing during the operation; 5. neoadjuvant therapy allows to plan the local therapy carefully during the time of chemotherapy, and 6. histopathological investigation of the resected tumor allows to assess the effect of initial chemotherapy and opens the possibility to change or adjust the treatment if this effect was insufficient.
With the concept of neoadjuvant therapy the prognosis of childhood cancers has dramatically improved over the past years. According to the statistics of the German Childhood Cancer Registry, five-year survival rates are about 70% for CNS tumors, 75% for neuroblastomas, 90% for nephroblastomas, 74% for rhabdomyosarcomas, and 73 and 69% for osteosarcomas and Ewing sarcomas, respectively, and about 80% for all malignancies.

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Extended Spectrum of Allogenic Bone Marrow Transplantation for Children with Primary Immunodeficiency at King Hussein Medical Center
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Objectives: To present the data on spectrum and outcome of Bone marrow transplantation for primary immunodeficiency at King Hussein Medical Center from 2004 to 2009.
Methods: A retrospective review of data on allogenic bone marrow transplantation for 19 transplants in 17 patients carried out at King Hussein Medical Center from 2004 to 2009
Results: A total of 19 transplants in 17 patients were done. 4 patients with Hyper IgM immunodeficiency, 3 with Leukocyte Adhesion Deficiency-I, one with combined Immunodeficiency, one with chronic Granulomatous diseases, while 8 patients were transplanted for severe combined immunodeficiency. Mismatched related peripheral CD3 depleted-stem cells transplants were done in 6 patients. Both myeloaplative and Reduced-intensity conditioning was used. 15 patients are alive with a success rate of 79%. All patients have stable, complete chimerism, except one based on a median follow-up period of 25.8 months. Moreover, 10 patients have good immune reconstitution, while 4 required immunoglobulin replacement therapy. Three patients had significant acute graft-versus-host disease (GVHD), and two patients had chronic GVHD. Veno-occlusive liver disease was observed in two patients. One patient developed bone marrow hypoplasia after first bone marrow transplantation which was successfully treated with second transplant after Fludarabine and anti-thymocyte globulin (ATG). Four patients developed cytomegalovirus (CMV) infection after bone marrow transplantation.
Conclusion: Hematopoietic stem-cell transplantation offers long-term benefit in children with primary immunodeficiency. Early diagnosis, performance of bone marrow transplantation at early stage with an optimal donor, appropriate conditioning regimen, careful supportive therapy and monitoring for various pathogens are important for the successful bone marrow transplantation.

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Recent Scientific Aspects on Malignant Diseases

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Cure rates of children and adolescents with cancer could remarkably be improved over the past decades by intensification of chemotherapy and appropriate use of supportive care as well as the targeted indication for stem cell transplantation, mostly in patients suffering from leukemias. With currently available therapies about 80% of children will be long-term survivors of their cancers and probably be cured, some of them with substantially impaired quality of life because of treatment related late sequelae.
Nevertheless, despite these optimistic figures about 20% of affected patients still succumb to their disease. Thus, there is further need for improvement in order to reduce adverse late effects of therapy and to improve the cure rate aiming at cure for all childhood cancers.
Because of their frequency relatively easy accessibility of malignant cells, leukemias have always been a model for cancer research. Cyto- and molecular genetic abnormalities could be identified during the past years which gave insight into the etiology and the pathogenesis of leukemias and other childhood cancers as well. Regularly occurring chromosomal translocations, resulting fusion genes or other changes have been found to play an important role for the diagnosis and also for follow-up investigations. In part, drugs have been developed targeting these structures, e.g., inhibitors against tyrosine and receptor tyrosine kinases. The most prominent example is imatinib, the inhibitor of the BCR-ABL encoded tyrosine kinase in t(9;22) positive leukemias. Other molecular targets are being sought in different intracellular pathways, in particular in apoptosis.
Another direction of current research is the search for surface markers on leukemia or tumor cells that might be targets for immunological treatment approaches. Potential and in part already utilized structures are CD20, CD19, CD22, CD3, CD33, the latter also linked to the cytotoxic drug calicheamycin. One of the most remarkable developments is a T-cell engaging antibody which binds to CD19 and CD3 thereby activating the patient's own T-cells to kill CD19 positive leukemia cells.
New antimetabolites have been developed making use of preferential metabolic

pathways of leukemia cells during DNA synthesis. Nelarabine and forodesine, for example are drugs particularly designed for acute lymphoblastic leukemias of T-cell origin.
Short variable gene sequences in the immunoglobulin and T-cell receptor gene region have been identified and can be used as individual leukemia specific marker to detect minimal residual leukemic cells in up to 100.000 normal cells. This technique is being used to measure the response to therapy. According to the result patients are allocated to treatment arms of intensity deemed appropriate for the individual relapse risk, e.g., also to stem cell transplantation.
Thus, a variety of structures have been found to be characteristic of specific leukemias or tumors and may be used to target malignant cells much better and specific than currently used unselected chemotherapeutics. Such agents will hopefully improve the therapeutic options and contribute to further improved cure rates and less treatment related late effects.

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Outcome of Treatment of Pediatric Ewing Sarcoma Family of Tumors, Single Institution Experience

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Objectives: To review the clinical characteristics and outcome of new patients with Ewing sarcoma family of tumors who were presented to KHCC over 7Y., from 1 January 2003 till 31 December 2009.
Methods: The files of all newly diagnosed patients of Ewing Sarcoma family of tumors below 18 years of age who were presented to KHCC after IRB approval, during the period from 1 January 2003 to 31 December 2009 were reviewed, patients were classified to either localized or metastatic disease according to the presence or absence of distant metastasis at diagnosis, both groups were treated with chemotherapy in form of Vincristine, Doxorubicine and Cyclophosphamide alternating every 3 weeks with Ifosfamide and Etoposide which is given for a total of 42 months for patients who finished there chemotherapy. Local control at week 12 by surgery, radiotherapy or both, this depends on if surgery is possible or not and on either resection is complete or not. Control for persistent metastatic sites usually at week 30 by radiotherapy except for the lung metastasis were all patients received whole lung radiotherapy regardless of the response of the lung lesions.
Results: 50 patients were diagnosed to have Ewing sarcoma family of tumors, median age 12.0 years (range 0.4 – 18.0 years), and median follow up period 40.9 months (range 0.6 month – 78.9 months), three patients were lost for follow up, 25 (50%) males and 25 (50%) females, male to female ratio 1. In 45 patients (90%) tumor was of bone origin and in 5 patients (10%) its of soft tissue origin. Those originate from the bone, in 21 patients (42%) its from the lower limbs, and in 7 patients (14%) from upper limbs, and in 11patients (22%) from the spine/pelvis, and for 3 patients (6%) from clavicle/scapula, for 3 patients (6%) from ribs, Those originate from the soft tissues for 5 patients (10%) from mediastinum, for 2 patients (4%) from the retroperitonium and for one patient (2%) from the scalp, and for one patient (2%) from the kidney. 37% (37 patients) were localized and 26% (13 patients) have metastasis at time of diagnosis, all of them have metastasis to the lungs, 3 to the bone and one to the bone marrow. 98%(49pt.) received chemotherapy (one died before starting chemotherapy due to surgical complications.), Surgery done for 29 patients (58%), radiotherapy given for 29 patients (58%), 9 patients (18%) needed both surgery and radiotherapy. For localized tumor group expected 3 years survival is 73.9% and 5 years survival is 63.3%. For metastatic group the expected 3 years survival is 56.3% and 5 years survival is 42.2%. Only one of 3 patients (33%) who have bone metastasis is alive. Patients who are having lung only metastasis are 8 patients, 4 patients are alive, 3 patients died and one patient was lost for follow up.
Conclusion: During the study period, 50 patients were diagnosed to have Ewing Sarcoma family of tumors, males to females 1, majority are of bone origin 90%, in most of the time it originate from the long bones of the lower limbs, one of our patient had PNET of the kidney, a

rare site of origin. Ewing sarcoma family of tumors have good prognosis when its localized, but still prognosis is poor when its metastatic at diagnosis specially bone metastasis , and novel chemotherapy is needed for this group of patients.

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Management of Primary Bone Tumors in Children and Adolescents - Own Experience

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Between 1980 and 2010, one-hundred and twelve children and adolescents were treated for newly diagnosed bone tumors at the Dept. of Pediatric Oncology and Hematology of the Charité, Berlin. Sixty patients were suffering from osteosarcomas (OS) and 47 from Ewing sarcomas (ES); other bone tumors were diagnosed in 5 children. The male/female ratio was 39/21 in OS and 24/23 in ES. Eighty-three percent (OS, n = 50) and 85% (ES, n = 40) of the patients were older than 10 years, and only 1 patient each was younger than 1 year. The median age was 14 years for both groups. Metastases were found in 11/60 (18%; lung n = 9, skeleton n = 2) OS and 22/47 (47%; lung n = 5, skeleton n = 8, other n = 4, and multiple sites n = 5) ES patients.
All patients were treated with chemotherapy according to the treatment optimization study protocol of the Society of Pediatric Oncology and Hematology as appropriate. Following preoperative chemotherapy local therapy was performed either surgically and/or by radiation therapy depending on the individual condition (localization of the tumor, response to neoadjuvant therapy, or, rarely by individual choice of the patient or his guardians). Preferentially, surgical removal of the tumor was performed with limb salvage surgery, mostly by joint endoprosthesis. Some patients who either refused surgery or where surgical removal of the tumor deemed impossible were treated with local irradiation which led to good local tumor control in the majority.
In more recent years, positron emission tomography with 18-Fluoro-deoxyglucose (18FDG-PET) was used to assess the metabolic activity of the tumor and/or metastases prior and post neoadjuvant chemotherapy and the results correlated with the histological response as determined in the resected tumor. Based on the results up to now it is not yet clear whether FDG-PET may reliably be used for non-invasive assessment of response to preoperative chemotherapy.
Three OS and 2 ES patients did not respond to therapy, and 1 patient died from treatment related toxicity. Relapses occurred in 38 (34%) patients, 22 (37%) in OS and 14 (30%) in ES. Two OS and ES patients each suffered a second malignant disease.
For OS patients, the 5-year Kaplan-Meier estimates are: Event-free survival 0.56 ± 0.07 for the total group; 0.61 ± 0.08 for patients without metastases and 0.36 ± 0.14 for patients with primary metastases. Overall survival rates are: 0.74 ± 0.06 for the total group; 0.82 ± 0.06 for patients without metastases and 0.46 ± 0.15 for patients with primary metastases.
For ES patients, the 5 year Kaplan-Meier estimates are: Event-free survival 0.57 ± 0.08 for the total group; 0.63 ± 0.11 for patients without metastases and 0.52 ± 0.11 for patients with primary metastases. Overall survival rates are: 0.72 ± 0.07 for the total group; 0.84 ± 0.08 for patients without metastases and 0.60 ± 0.11 for patients with primary metastases.
The most important adverse prognostic factors were metastases at initial diagnosis and large tumor volume.

Hall E Session 1
Gynecology - Endoscopy

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Endoscopic Onco-Surgery

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Performing endoscopy in oncology separates the medical community in two parts. On the one hand are disbelievers and rejectors and on the other hand are experienced laparoscopists who know about the endoscopic advantages. Besides the known an generally accepted advantages of endoscopy (ie. reduced blood loss, less post operative pain, reduced hospital stay and earlier return to normal function), the magnification of the operating field enlightens deep pelvic structures, lymphnodes and the autonomous nerve fibres. Contrary to this, some stress out a compromise in radicality or the appearance of port site metastasis in endoscopic onco-surgery.
Endoscopic onko-surgery has been performed for many years for treatment of cervical cancer and endometrial cancer but still a uniform approval is missing. Why is this so?
Various studies have shown the feasibility and long time results of oncologic endoscopy
In oncology the prognosis correlates often with the extent of disease according to FIGO or TNM classification. Surgical staging is superior to imaging staging because it provides histological verification. The lymphnode status is the most important prognostic factor in gynaecological cancers and hence pelvic and paraaortal lymphadenectomy has become in integral part of treatment in most gynaecological malignancies.
When compared with MRI laparoscopic staging was superior in detecting microscopic lymphnode metastases. No differences in omental specimen size and number of lymphnodes were observed. Laparsocopic staging was associated with less blood loss and shorter hospital stay but longer OT times (ZITAT?).
Especially in case of onco surgery a lot of mismanagement can be observed worldwide. Usually, this remains undetected so that the individual surgeon has no real inclination to change even though the patients fate depends on the quality of surgery. Therefore it has to be stated that it is never necessary to manage a patient with a malignancy laparoscopically. However, since a variety of benefits result out of laparoscopy,we have to train ourselves to increasingly use endoscopic approaches in oncology.

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Pregnancy Outcomes in Metformin-Treated Women with Gestational Diabetes

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Background: Preliminary evidence from on-going prospective studies suggests that metformin may offer advantages over insulin in the management of gestational diabetes.
Objective: To compare maternal and neonatal outcomes in women with gestational diabetes treated with either metformin or insulin
Method: We prospectively studied 100 consecutive women with gestational diabetes attending our Diabetes Antenatal clinic who were not adequately controlled by dietary measures. They were treated with metformin 500mg bd and the dose was titrated up to a maximum of 2500mg/day to achieve target home blood glucose monitoring values (fasting <6mmol/l, 1h post-prandial <8mmol/l, 2h post prandial<7mmol/l). 11 women stopped taking metformin (intolerance in 4, refusal to continue in 7) and 9 required additional insulin. Pregnancy outcomes in the 80 women who remained exclusively on metformin until delivery were compared with a cohort of 80 women with gestational diabetes attending our clinic, matched for BMI and ethnicity, who were treated with basal-bolus human insulin.
Results: Women treated with metformin gained less weight compared with the insulin group (mean (SEM) weight gain (kg): 0.3 ± 0.03 v 1.4 ± 0.15; p<0.01). There were no significant differences in the occurrence of hypertension or pre-eclampsia. Neonatal morbidity was significantly improved in the metformin group with less prematurity (0% v 11%; p<0.01), less jaundice (9% v 43%; p<0.01) and fewer admissions to the neonatal unit (5% v 19%; p<0.01). No significant differences were found in the rate of Caesarean delivery, birth weight, number of babies with macrosomia, incidence of shoulder dystocia, congenital malformations or abnormalities in the post-natal glucose tolerance test.
Conclusion: These findings, taken together with accumulating evidence from larger trials, suggest that metformin is beneficial in the management of gestational diabetes and may offer advantages over insulin.

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Medical and Surgical Therapy of Endometriosis

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Endometriosis is affecting approximately 1,5 Mio women of reproductive age in Germany i.e. 40,000 primary diseases per year which is equivalent to the number of primary breast cancers per year. It can be assumed that of all patients suffering from infertility 40% have endometriosis. The most common cause for the development of endometriosis seems to be retrograde menstruation (~95%). Since there is no clear line it is important to look at symptoms associated with menstruation like

- Menorrhagia, irregular bleeding
- Dysmenorrhea, painful bleeding
- Migraine, headache
- Premenstrual symptoms
- Acne, seborrhea
- Epilepsy
- Porphyria
- Genital infections

It is also known that menstruation linked problems cause a 25% reduced productivity in female workers during the time of their period and in teens an increased risk of being unable to attend school or sports activities. An average cost of nearly 900 Mio US$ have been estimated for the treatment of endometriosis associated problems. What can be done?
Patients complain that nobody takes their complaints seriously. Gynecologists regard differential diagnosis as difficult and time consuming, requiring surgery to be pricise. Other doctors including GP´s underestimate the frequency and relevance of the disease and usually know little about it and surgeons don´t like it because surgery is difficult and often not well paid. Endocrinologists at last have no proper therapeutic options to treat endometriosis especially in case of infertility. Patients feel that they have no lobby to take care of them which explains that on average it takes about 6 year from onset of symptoms to final diagnosis of endometriosis.

Surgical therapy

The removal of all peritoneal implants is a primary goal in patients with complaints. Even though it is not yet resolved whether coagulation, vaporisation or excision is the best form of treatment it should be considered that only excision reveals the chance of a histo-pathological result. With a failure rate of 25% in detecting endometriosis just by inspection a histo-pathological justification of a latter therapy with many side effects is required.
Laparoscopic uterine nerve ablation in patients with pain has not improved the results.
In ovarian endometriosis excision of the endometrioma yields the most promising results. Infertility patients, however, require maximum effort to protect the ovarian reserve.
In case of deep infiltrating endometriosis DIE with symptoms complete in sano excision is mandatory. In case of radical surgery the impact of surgery has to be weighed against the symptoms as well as the possible destruction of important organs like ureter with consecutive renal failure.

Medical therapy

Up to date medical suppression of ovarian function is the method of choice. Most endometriotic implants turn into regression. GnRH-analogues seem to be more effective than oral contraceptive or gestagens. The side effects need to be considered as GnRH-analogue therapy exceeding 6 months can cause irreversible bone mineral density loss. Therefore and in case of severe side effects like all menopausal symptoms add-back therapy using oral contraceptives or tibolon can be very helpful allowing the extension of more than 6 months. In case of ovarian endometriosis or DIE medical therapy without prior surgical excision cannot be recommended.

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Matenal Mortality in Jordan: Results of the Second ever Study of Maternal Mortality Ratio for Jordan

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Objectives: The objectives of maternal mortality study in Jordan, 2007-2008, were as follows: 1. Estimate maternal mortality ratio among Jordanian women in the reproductive age. 2. Identify the direct and indirect causes of maternal mortality. 3. Determine the extent to which maternal deaths are preventable. 4. Determine the factors which if addressed, would prevent maternal deaths. 5. Assess hospital medical records and vital records in terms of appropriateness and completeness.
Methods: The reproductive-age mortality survey (RAMOS) approach was applied to study maternal deaths. RAMOS is the gold standard for identifying pregnancy-related approach and involves: 1. Identifying and investigating the causes of all deaths of women of reproductive age in a defined area/population by using multiple sources of data (e.g. interviews of family members, vital registrations, burial records, traditional birth attendants, reviewing the medical records of physicians, clinics, and hospitals) on all women who died from age 10 through 50. 2. Review of autopsy records of selected deaths with causes likely to be associated with pregnancy (e.g., deaths from hemorrhage, embolism, or sepsis). 3. Deaths from causes such as motor vehicle-related injuries and cancer would not be reviewed.
Results: A total of 76 maternal deaths were identified in 2007-2008 out of 397588 live births, a maternal mortality ratio of 19.1 deaths per 100,000 live births. Of those maternal deaths, 40.8% were in the age group of 19-29 years, 29.3% had a family size of 7 members or more, and 15.8% of deaths occurred in the Southern Region of the country, where the population there constitutes only 9.3% of the total population of Jordan. Only 38.1% of women had finished some college education, 19% had high school certification, 14.3% had middle school education, 19% had elementary education, and 9.6% were illiterates. The majority (80.4%) had a monthly family income of <350 Jordanian Dinars. Of all maternal deaths, 46.1% took place at peripheral hospitals, and 17.1% did not make it to a hospital.
Conclusion: This report should reassure the public that maternal deaths in Jordan are rare and declining. Overall, 76 women had a maternal death out of the 397588 mothers who gave live birth during the years 2007-2008. The maternal mortality ratio for both direct and indirect causes of death showed a remarkable decrease as compared with the last Report of 1995-1996. A reduction of 53.9% achieved in 12 years (4.5% annual reduction) goes well with the 75% reduction as recommended by the Millennium Development Goals.

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Laparoscopic Management of Ovarian Dermoid Cysts

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Objectives: To evaluate feasibility, safety and efficacy of laparoscopic management of ovarian dermoid cysts.
Methods: A retrospective analysis of 119 patient's files with histopathogically confirmed diagnosis of ovarian teratoma in patients who underwent laparoscopic ovarian cystectomy.
Results: One hundred and twenty nine dermoid cysts with a mean diameter of 4.7 cm were removed in 119 patients. The mean age of the patients was 38.3 years (range 16–73 years). No malignancy was encountered in all women. Dermoid cysts were bilateral in 10 women (8.4%). The recurrence rate was 6.7%. Preoperative transvaginal sonography led to the correct diagnosis in 85 cases (71.4%). Ninety one cystectomies with ovarian conservation and 38 adnexectomies were performed. Spillage of cyst contents occurred in 34 cases (26.3%). No cases of chemical peritonitis were noted. All cases were treated via enucleation followed by cystectomy, or adnexectomy and removed through a trocar sleeve. Mean hospital stay after surgery was 2.3 days, and there were no intraoperative complications. In 2 cases, there was a postoperative complication of an incisional infection in the umbilicus. The mean operative time was 86 minutes.
Conclusion: Laparoscopic management of ovarian dermoid cysts can be safe and successful if there is expertise in operative laparoscopy, availability of immediate accurate pathologic examination, and appropriate further treatment when indicated.

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Obesity - A Time Bomb!

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The 2003-2005 report of the Confidential Enquiries into Maternal Deaths in the UK

highlighted that 35% of pregnant women dying from direct or indirect causes were obese. Increasingly, obstetricians and physicians are encountering obese women who are pregnant or, are contemplating pregnancy. Our study shows that obesity has a negative impact on pregnancy outcome by increasing antenatal, intrapartum, postnatal and neonatal complications posing significant challenges for physicians.

Aims: To assess the incidence, ethnic association, antenatal and postnatal complications of raised BMI (body mass index) in pregnant women and to compare the maternal and neonatal outcomes in obese and normal weight women.

Methods: Retrospective and prospective analysis of 18,000 pregnant women from St Helier University hospital (January 2003-2008). Data collected from PROTOS system and put on excel sheet before statistical analysis.

Results: 50% of women were found to be pre-obese or obese. Women of Caucasian origin were more likely to be obese (P< 0.001) as compared to Black and Asian women. The caesarean section rate was 34.5% in obese women as compared to 19.3% in women with normal BMI (statistically significant). The rate of pre-existing diabetes mellitus was between 4.8-6.6% in obese women as compared to 1.1% in normal population (P value<0.0001). Similarly, pre-existing hypertension was found in 12.8% of obese women as compared to 2% in women with normal BMI (P value <0.0001). Blood loss > 2litres was 1.07% in obese mothers and 0.29% in normal population. 6.1% of babies born to mothers of normal BMI were admitted as opposed to 7.9% born to obese mothers. The still birth rate was 1.2% in obese women as compared to 0.25% in normal BMI mothers. Up to 24.5% of babies born to obese mothers weighed >4 kg as compared to 8.6% in normal BMI (statistically significant).

Conclusion: This study highlights the need of a multidisciplinary weight management clinic to optimise weight control and identify risks for obese women.

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NOTES in Gynecology

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From the very beginning of endoscopic surgery it was one of the aims of the surgeons not to produce big scars but to remain fairly invisible for the outside observer. In an attempt to stress this aim the NOSCAR consortium, a collaborative effort of the American Society for Gastrointestinal Endoscopy and the Society of American Endoscopic Surgeons joined. The abbreviation of NOSCAR means Natural Orifice Surgery Consortium for Assessment and Research and allows quite obvious association with "no scar". The relevant method to deal with is called NOTES and means Natural Orifice Transluminal Endoscopic Surgery. It seems that using an accidental perforation of the stomach to remove an appendix has started a new way of thinking. It now seems quite reasonable to discuss approaches like transgastric, transcolic, transvesical and transvaginal as ways to improve patients well being. Avoiding injury to the abdominal way results in a less invasive procedure, therby causing less associated stress, reducing reactive cortisol, TNF-α IL-6 and CRP increase. Less tissue trauma will result in a better immune response and may cause less adhesions.

Gyncologists have practised vaginal surgery for centuries and diagnostic endoscopy started with culdoscopy as a tool to describe the tubes and ovaries as well as the pouch of douglas. It is therefore more than natural to choose the transvaginal route for any type of surgery in the abdomen. This is even more so as a few years ago transvaginal hydro laparoscopy TVHL was introducwed as an office procedure to allow immediate testing for tubal pathology. It was even possible to demonstrate endometriotic implants in the pelvis visualise adhesions by separating them via the distension fluid. The dye test could be performed as well as a limited salpingoscopy. Under conditions of available anaesthesia this method could also be used for minor interventions like ovarian biopsies or sterilisations. Due to the application of straight lens optics it was however impossible to visualise the anterior wall of the uterus or the bladder roof, meaning a drawback for patients with infertility, chronic pelvic pain and other pathologies, which might be located there.

Meanwhile, it has been established to perform various procedures via this route by either using flexible optics or an semi-rigid optics with varying angles from 0°-120° (Chameleon, STORZ or EndoEYE LTF-VH, Olympus).

This allows to overcome the promontory as major obstacle when leaving the pelvis to approach the upper abdomen and redirect the vision to the anterior part of the pelvis.

In case of cholecystectomy the NOTES procedure would prevent the necessity to have an several centimetre long abdominal incision to finally remove the gall bladder in a bag. Going the vaginal way may even involve a hybrid technique whereby not all instruments have to be introduced through the vagina but that at least one 5mm instrument and a fixation of the gall bladder to the abdominal wall by a stitch through the abdominal wall immediate inferior to the lowest rib.

A variety of reports have proven successfulness in performing this procedure as an interdisciplinary intervention between surgeons and gynecologists.

When discussing new approaches to replace well established procedures like conventional laparoscopic cholecystectomy it is surprising to see the resistance within the medical community. German gynecologists had been interviewed what they would assume their patients would think about scarless surgery. Their overall response was that most patients would not want any such procedure. However, when patients were asked they responded much more favourable even allowing a higher surgical risk when using NOTES procedures.

In conclusion: NOTES is a new approach to the abdomen. We have to make sure, that the surgical procedure inside the abdomen is safe. In case of cholecystectomy both procedures like culdotomy as well as endoscopic cholecystectomy are well established procedures. Instrument handling might be difficult and advanced procedures are therefore not possible yet. Since we have gained very positive responses from our patients and seen the feasibility of the transvaginal endoscopic approach, we can only advocate that surgeons with sufficient experience in endoscopic surgery should start NOTES as an interdisciplinary intervention.

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Challenges in Pelvic Floor Reconstruction with Synthetic Meshes

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A recurrence rate between 29% and 40 % is reported for standard pelvic floor surgery, 60% of the recurrences appear at their previous sites.

Within the last decade, prolapse repair may be managed by the insertion of meshes with uterine preservation or including vaginal hysterectomy depending on the type of combination of pelvic floor defects, and is based on the concept of a connective tissue damage of the endopelvic fascia and its replacement by an artificial prosthesis. The final goal should be a sufficient, adequate and sustainable restoration of the apical, lateral and/or distal support (Levels 1, 2 and 3 according to deLancey)

The material of meshes consist of wide-pore non-absorbable or partially absorbable monofilament polypropylene materials.

Risk factors for a repair failure on the short -and long-term scale may be identified preoperatively by

- staging of the prolapse according to the POP-Q- score
- urodynamic studies
- perceiving any urogenital atrophy

to minimize post surgical complications like a urethral, bladder or rectal erosion or a post-operative stress urinary incontinence. A lower recurrence rate than with standard surgical procedures should be achieved.

Most data on the outcome of pelvic floor surgery, however, do not fulfil the demands for a statistical significance that allows to draw conclusions or decide on an evidence-based level above II or recommendations above grade B to date. A pelvic organ prolapse (POP) of the anterior, central and/or posterior segment may be associated with or without clinical symptoms. Predicting who will benefit from treatment / POP repair is complex. For any evaluation the assessment of anatomical versus functional outcomes by standardized gynaecological examinations (POP-Q) and standardized questionnaires should therefore be mandatory and monitored in the pre- and

postsurgical period. Comorbidities must also be monitored.
These observations in the surgery of upper vaginal wall, anterior vaginal wall and posterior vaginal wall prolapses by xenograft materials are in accordance with a Cochrane review on this topic which has recently been published by the International Continence Society.

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Abdominal Wall Defects: A Review of 20 Cases

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Objectives: To determine the frequency of abdominal wall defects among patients who were delivered at Prince Rashid Bin Al-Hassan Hospital and to evaluate the role of prenatal sonography in identifying factors that influence prognosis.
Methods: This descriptive review study of 16962 medical Records was conducted over a period of three years between August 2005 and July 2008 at Prince Rashid Bin-Al-Hassan Military Hospital, Irbid-Jordan.
Results: During the study period, there were 20 cases of abdominal wall defects (1.18/1000 births), of these there were 14 cases of omphalocele (0.83/1000 births), and 6 cases of gastroschisis (0.35/1000 births). Sonographic differentiation between omphalocele and gastroschisis was possible in 15 (75%) of 20 cases. Associated abnormalities were present in 12 (86%) of 14 fetuses with omphalocele and three (50%) of sex with gastroschisis. Survival rate was 36% for neonates with omphalocele and 80% for those with gastroschisis.
Conclusion: The frequency of abdominal wall defects is high in our area, and sonography can be used to accurately diagnose abdominal wall defects in utero. The better prognosis for neonates with gastroschisis appears to reflect the lower frequency of associated congenital anomalies.

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The Use of Minimal Invasive Surgery in the Treatment of Disorders of the Female Pelvis

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The application of minimal invasive surgical techniques in patients suffering from disorders of their pelvic organs offers the chance to perform organ preserving surgery. An ever growing percentage of women demand organ preservation. This is the reason why these techniques should be part of every gynaecological surgical repertoire.
Premalignant and malignant lesions of the vulva (VIN 2 – 3), vagina (VaIN 1-3), cervix (CIN 1-3; ACIS) may be diagnosed by support of a **colposcope** allowing an inspection at a 7.5, 15 and 30fold magnification with typical alterations classified by the Barcelona scheme. In these cases, laser-therapy is often an option for further treatment.
A preserving of the uterus may be achieved when **hysteroscopy** is used for bleeding disorders each time they are caused by fibroids or hyperplasia of the endometrium; in these cases they can be treated by an endometrial ablation or myomectomy of submucosal fibroids.
Laparoscopy may prevent laparotomies when this method is vastly applied for realizing an adhesiolysis in the pelvis, a l.a.s.h. or l.a.v.h. (laparoscopic assisted supracervical/vaginal hysterectomy), a resection of subserosal fibroids, in the situation of infertility or treatment of endometriosis by this technique instead of carrying out a abdominal approach.
Another mininmal invasive procedure must be seen in the treatment of stress urinary incontinence by inserting synthetic **suburethral slings** like TVT or TVT-O.

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Management of Atypical Cervical Pap Smears at KHMC

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Royal Medical Services

Objectives: The purpose of this study was to study the outcome of atypical squamous cells of undetermined significant (ASCUS) on cervical Pap smears and the role of colposcopy to its management at KHMC.
Methods: A prospective study was conducted on patients referred to our colposcopy clinic due to abnormal pap smears (atypical squamous cells of undetermined significant) from Aug. 2008 till Jan. 2010. 54 cases were identified, pap smears collected and colposcopy with directed cervical biopsies performed when indicated. Patients with diagnosed cervical dysplasia on histopatholgy received definite treatment with Loop or cone biopsy to cervix. Data were analyzed according to presence of symptoms, pap smear results, colposcopy finding, and histopatholgy results of cervical and Loop biopsies.
Results: Total 54 patients identified with atypical pap smears, 26/54 case (48%) presented with abnormal vaginal bleeding, 12/54 cases (22%) with recurrent vaginal infections, 12/54 (22%) with no presenting symptoms, and 4/54 cases (8%) with other symptoms. On repeated pap smears about 44/54 cases (81%) had normal pap smears, 8/54 cases (15%) had low grade dysplasia, and only 2/54 case (4%) had ASCUS smears. However, no cases of sever dysplasia or cancer identified. Cervical biopsy were performed in 32 patients and the histopathology showed about 41% 22/54 cases with dysplasia (12 high grade and 10 low grade), 33% 18/54 cervicities, and 4% (2/54) cases normal smear. However, on definite treatment by Loop to cervix; 33.5% (14/54) cases dysplasia was diagnosed (14 high grade and 4 low grade), 7.5% (4/54) cases had cervicitis, and no cases of cancer were identified.
Conclusion: More than one third of cases with atypical squamous cells of undetermined significant on pap smears showed cervical dysplasia on colposcopy and cervical biopsy. We recommend referring all cases with abnormal pap smears for colposcopy clinic for further evaluation and definite treatment of dysplasia to prevent their development to cervical cancer.

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An Interdisciplinary Approach for Outpatients Suffering from incontinence

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Over the years, a standardized protocol has been established for outpatients of the Gynecological Dept. who present with pelvic floor disorders or seek for incontinence care. This protocol consists of a three-step model for diagnosis and treatment that has been consented interdisciplinary and intersectorally, and thus enables a conceptual validation and treatment approach referring

- to subjective and objectified symptoms and
- to different scales of suffering.

The 1st step can be characterized as a general , wheres level 2 and 3 are subject to a specialized incontinence unit.
The first step of the concept reflects the basis of diagnosis and therapy; these services may be offered by any medical practice: standardized questionnaires, urinary diary, bacteriological examination of the urine, standardized gynaecological and rectal examination, vaginal ultrasound. The evaluation of these results are linked with different conservative therapy options, i.e. Toilet training, drinking habits or the application of pessaries
In a second step, urodynamic examinations are performed to analyze lower urinary tract dysfunctions as well as an introitus or perineal sonography or a rectal manometry. The surgical procedures will be monodisciplinary
In a **third step**, defecographies, a dynamic MRI or other more sophisticated diagnostic tools are applied; the surgical procedures following will be interdisciplinary.
For steps 2 and 3, the presentation before the interdisciplinary pelvic floor conference is mandatory.-The 3 -step concept allows a maximum of safety for patients and doctors likewise and has been established to tap the full potential of therapeutic repertoire and to decide in favour of riskier therapies corresponding to the above mentioned scale of indication.

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Evaluation of Transobturator Vaginal Tape for the Treatment of Female Urinary Stress Incontinence

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Objectives: To study the efficacy of performing transobturator vaginal tape procedure in the management of female urinary stress incontinence.
Methods: The transobturator vaginal tape was performed in 65 patients with urinary stress incontinence in Saarbrücken Caritas Klinik in Germany in the period from May 2006 to October 2007.
Results: The mean age of the women was 54.5 years (range 29-73) , parity 1.7 (range 0–3) and mean body mass index (BMI) 24.1 (19-35). The operating time was 17 min (range 12-27).Sixty three (96.9%) of the women resumed immediate spontaneous voiding with no need for catheterization. The mean in patient stay was 2 days (range, 1- 3). The follow-up was conducted at a mean interval of 10 (3±17) months. objectively, urinary stress incontinence was cured in 87.7%. The incidences of detrusor overactivity and voiding dysfunction did not change significantly from 2/65 (3.1%) and 3/65 (4.6%) preoperatively to 1/65 (1.5%) and 1/65(1.5%), respectively, after the operation. There was one patient with Sling protrusion.
Conclusion: The trans obturator vaginal tape operation is an effective and safe method for treating female urinary stress incontinence , it significantly improves quality of life, with an objective recovery rate of 87.7%.

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Transabdominal Chorionic Villus Sampling for Prenatal Diagnosis at Prince Ali Ibn Al-Hussein Military Hospital, Al-Karak - Jordan

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Objectives: The aim of our study was to determine the safety and accuracy of transabdominal Chorionic Villus Sampling (CVS) for prenatal diagnosis. SETTING: This study was conducted at Prince Ali Bin Hussein Military Hospital, Karak-Jordan.
Methods: A total of 65 singleton pregnancies at risk of chromosome abnormalities were referred to our hospital. CVS was performed transabdomaly after 11 weeks under local anesthesia and ultrasound guidance .Feta karyotyping was obtained using a direct method and was completed by cell culture.
Results: A total of 10 CVSs were done. The most common indication was abnormal ultrasound findings, family chromosome disorder, severe oligohydramnios and abnormal Thalassemia screening .All placental positions were approachable through the trans-abdominal route. Most aspirations were easy; the overall success rate was 100%. Other minor complications were bleeding or spotting.
Conclusion: CVS is a safe and effective method for prenatal diagnosis. The overall complication rate is quite low and acceptable.

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Adenomyosis in Jordanian Women Undergoing Hysterectomy: A Study of Prevalence, Risk Factors and Preoperative Diagnosis

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Objectives: Adenomyosis is a relatively common clinical entity in multiparous middle aged women. Little is known about the pattern of adenomyosis in Jordanian women. Our objective in this study is to highlight these patterns
Methods: All Hysterectomy specimens reaching the laboratory in the 4-year period January 2005 – October 2008 were analyzed. Adenomyosis was diagnosed if endometrial glands and stroma are seen in the myometrium at a distance at least one low power field from the junctional zone. In the above period, 755 Patients notes were retrieved and the following data collected: Parity, clinical indication, previous investigation prior to surgery and finding at histology. The data were analyzed to study the prevalence of adenomyosis in relation to the above parameters. The X2 test with Yates correction was used to assess the statistical significance of differences between groups.
Results: The mean age was 49 (range 14 -74 years). Adenomyosis was diagnosed in 236 cases (31%). In the latter, the mean age was 50.5 (range 25-72); with a significantly higher prevalence being reported in those aged 40-59 years and multiparous women. Endometrial hyperplasia, fibroids and cervicitis are associated positively with adenomyosis. Endometrial and ovarian cancers were negatively associated with adenomyosis in our study. Preoperative diagnosis of adenomyosis was only rectified in 92(39%) cases in our study. The rest were diagnosed only by histological examination.
Conclusion: Adenomyosis is a prominent finding in hysterectomy specimens. It is significantly linked to multiparity, endometrial hyperplasia and fibroids. There is poor correlation between preoperative diagnosis and histological diagnosis.

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The Effect of Oral Contraceptive Pills Pre-Treatment on IVF Outcome in Patients with Poor Ovarian Reserve

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Objective: To evaluate the effect of oral contraceptive pills pre- treatment for three months prior to stimulated cycles on the outcome of IVF for patient with poor ovarian reserve.
Methods: A prospective analysis for data from a validated IVF unit data base.
A comparison of the duration of treatment, total dose of Gonadotrophines used
Number of eggs retrieved, implantation and pregnancy rates.
Setting; Assisted reproductive unit and In -vitro fertilization (IVF) at King Hussien Medical Centre over a period of eighteen months (March 2008- August 2009).
Design: the study included 112 patients over a period of 18 months, those patients were diagnosed as poor responders on the basis of either age over 35 yrs, high FSH >12.0
Previous history of poor response (4 or less oocytes per stimulated cycle)
Those patients were divided into 2 groups. First group(n :60) were given oral contraceptive pills (Marvelon) for 3 months before starting ovarian stimulation using ultra-short protocol and the second group(n: 52) were started immediately using ultra –short protocol without contraceptive pills. In both groups recombinant FSH was the drug used as stimulating Gonadotrophines.
Results: the pre – treated groups required longer duration of treatment (12.2 Vs 9.6) days, higher total dose of FSH (4552.5 Vs 3217.5) IU.
However the pre- treated patients produced more oocytes with average (8 oocytes Vs 4) , but there were no other difference in cycle characteristics between the two groups. Implantations and pregnancy rates were not affected.
Conclusions: pre- treatment with oral contraceptive pills in patients with poor ovarian reserve might only produce more oocytes but without improvements of implantation or pregnancy rates , however it is still used for cycle scheduling in our centre.

Hall E Session 3
Gynecology U/S

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Structural Anomalies not to Miss in First Trimester Scan: The Experience of the CFEF about the Outcomes of Fetuses with Malformation Discovered before 14 weeks

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Background : First trimester scan has become an incontrovertible method for the detection of fetal anomalies. The detection of chromosomal malformation based on Nuchal translucency measurement

take a huge place in the first trimester scanner. However the detection of fetal abnormalities in first trimester could changes the outcomes of the pregnancy.
The aims of our study were to review detection of fetal malformations during the first trimester and to study pregnancy and infant outcomes.
Materiel and methods : This study was overseen by the French College of Fetal Echography (CFEF). All the cases of abnormality detected before 14 weeks' gestational age, excluding the isolated increased nuchal translucency, were extracted from the total population examined, and details were entered into the database of the French College of Fetal Echography. All case records were then analyzed. Also we compared two populations: before and after July 2001 (Date of changing the maximal gestational age for voluntary terminations of pregnancy in France : 14 weeks)
Results : We observed 336 fetuses with malformation(s), 108 before July 2001 and 208 after that date. One percent (0.5-1.6) of scans performed between 10 and 14 weeks revealed fetal abnormalities apart from isolated increased nuchal translucency. Of the 336 cases retained for investigation, 109 increased nuchal translucency or hygroma associated with other malformation(s), 103 central nervous system anomalies, 85 malformations of the thoracoabdominal wall, 81 limb abnormalities, 41 had renal malformations, 28 spinal abnormalities, 21 had heart malformations, 16 involved biometric abnormalities, 12 involved abnormalities of the appendages, and 11 facial abnormalities. Medical termination of pregnancy was performed in 75% of cases. Death in utero occurred in 9% of cases, 12% of infants were born alive. In 3.9% of cases, an abortion was performed. There were no differences between both populations before and after July 2001
Conclusions: Excluding isolated increased nuchal translucency or hygroma, malformation before 14 weeks' gestational age was detected in 1% of fetuses. The most common malformations detected in the first trimester were non-isolated increased nuchal translucency and malformations of the thoracoabdominal wall and the brain. The prognosis for fetuses with malformations detected during the first trimester was very poor as only 12% of these infants were born alive, some of them with severe malformations. In our study, and given its limitations, there were no differences between the number of voluntary terminations performed before and after July 2001.

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Other Endocrine Disease in Pregnancy

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A variety of endocrine disorders can occur in pregnancy. The pathology of most of these disorders is due to autoimmune, tumour or iatrogenic causes. In this review we discuss in detail less common disorders than, for example, diabetes mellitus and thyroid disease. The review includes parathyroid, adrenal and pituitary gland disorders.

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DOPPLER and IUGR

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(The abstract will be published online)

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Hysteroscopy and Assisted Reproduction : Believe it or not?

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Despite the rising success rate in Assisted reproduction services ,still many failures occur. Only a third of IVF cycles that are started end in a pregnancy (Society for Assisted Reproductive Technology and the American Society for Reproductive Medicine, 2007). Failure of IVF treatment can be broadly attributed to embryonic, uterine or transfer factors, but remains unexplained in most cases (Margalioth et al., 2006).
One of the promising investigations proposed after IVF failure is outpatient or office hysteroscopy (OH).
Hysteroscopy allows reliable visual assessment of the cervical canal and uterine cavity and provides the opportunity to perform therapy in the same setting. Moreover, routine OH prior to IVF has been suggested by a number of investigators as a minimally invasive and well tolerated test to ensure normality of the uterine cavity before embryo transfer.

Three non-randomized controlled studies examined the influence of OH on the outcome of the subsequent IVF cycle in patients having their first or subsequent IVF attempt (Mooney and Milki, 2003; Doldi et al., 2005; Chung et al., 2006). The three studies included patients who had OH in the cycle preceding the index IVF cycle as their study group.
The outcome of the three non-randomized controlled studies suggests that OH improves the pregnancy rate in the subsequent IVF trials as well as other assisted reproduction techniques.
Those who had hysteroscopy was significantly higher pregnancy rate than that in the control group.
The clinical pregnancy rate was similar in the subgroups of patients who had diagnostic (66.7%) or operative (74.1%) hysteroscopy.
All studies showed a consistent therapeutic effect of OH when performed just before an IVF cycle.
In conclusion, systematic review and meta-analysis of published controlled studies showed that OH is associated with improved IVF outcome when performed immediately before commencing an IVF cycle.
Furthermore, the economic cost of adding routine Pre IVF Oh will add very minimal compared to the cost of IVF cycles. Definitely, the cost benefit for routine OH in assisted reproduction deserve second look and careful attention among infertility specialists.

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Fetal Scanning in second and Third Trimester

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(The abstract will be published online)

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Open Testicular Sperm Retrieval for ICSI in Azoospermic Patients: Experience at King Hussein Medical Center

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Objectives: To describe our practice in open testicular biopsy and assess its success in retrieving sperms where FNA has failed and further assess its success in achieving pregnancy in azoospermic men
Methods: 179 patients with azoospermia who underwent open testicular biopsy were reviewed. The patients had bilateral testicular biopsy under GA by urologist. Embryologist was present and testicular tissue was transported to IVF lab in the same hospital in HTF Hepes sperm Wash Media. After analysis of testicular tissue, if sperm was present the sample was frozen in Sperm Freezing Media for later use in IVF/ICSI cycles. The outcome measures were the presence of sperm at the time of biopsy, survival of sperm after thawing, fertilization rate after ICSI and pregnancy rate.
Results: The mean age was 33.7 years (21-48). Fifty seven (32%) patients underwent open biopsy as a primary procedure. The rest, 122 cases had failed FNA before. Sperm was retrieved in 123 out of 179 (69%) patients and in 73 out of 122 (60%) patients with failed FNA. Eighty four cases underwent ICSI up to this date. In 11 cases (12%) no fertilization occurred. The pregnancy rate per embryo transfer was 36%.
Conclusion: Open testicular biopsy is successful in harvesting sperm where FNA has failed. It yielded reasonable pregnancy rates.

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A Rare Case of 3 Fetuses in Feto

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We present a rare case of 3 fetuses in feto. A 26 year old patient presented at 24 weeks gestation for anomaly scan. The fetus was found to have a complex mass in the lower part of the abdomen most likely a teratoma?. After delivery the baby had abdominal X ray and abdominal CT. The baby underwent laparatomy which revealed 3 fetuses. This was confirmed by histopathology. The baby made a good recovery and discharged home. The presentation will include history, all the

investigations including U/S, X-RAY, CT pictures, 3D CT pictures, histology report and a brief review of the literature. To our knowledge, there are only few reported cases in the literature of fetuses in feto and our case will be the first reported of 3 fetuses in feto.

Hall E Session 4
Obstetrics

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Future of Endoscopic Surgery. Robotic Surgery: Science Fact not Science Fiction

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Minimally invasive surgery spread out in 1987 with the first laparoscopic cholecystectomy. Since then, the list of procedures performed laparoscopically has grown at a pace consistent with improvements in technology and the technical skill of surgeons. The advantages of minimally invasive surgery are very popular among surgeons, patients, and insurance companies. Incisions are smaller, the risk of infection is less, hospital stays are shorter, if necessary at all, and convalescence is significantly reduced. Many studies have shown that laparoscopic procedures result in decreased hospital stays, a quicker return to the workforce, decreased pain, better cosmesis, and better postoperative immune function. As attractive as minimally invasive surgery is, there are several limitations. Some of the more prominent limitations involve the technical and mechanical nature of the equipment. Inherent in current laparoscopic equipment is a loss of haptic feedback (force and tactile), natural hand-eye coordination, and dexterity. Moving the laparoscopic instruments while watching a 2-dimensional video monitor is somewhat counterintuitive. One must move the instrument in the opposite direction from the desired target on the monitor to interact with the site of interest. Hand-eye coordination is therefore compromised. Some refer to this as the fulcrum effect. Current instruments have restricted degrees of motion; most have 4 degrees of motion, whereas the human wrist and hand have 7 degrees of motion. There is also a decreased sense of touch that makes tissue manipulation more heavily dependent on visualization. Finally, physiologic tremors in the surgeon are readily transmitted through the length of rigid instruments. From their inception, surgical robots have been envisioned to extend the capabilities of human surgeons beyond the limits of conventional laparoscopy.

The da Vinci and Zeus systems are similar in their capabilities but different in their approaches to robotic surgery. Both systems are comprehensive master-slave surgical robots with multiple arms operated remotely from a console with video assisted visualization and computer enhancement. In the da Vinci system which evolved from the telepresence machines developed for NASA and the US Army, there are essentially 3 components: a vision cart that holds a dual light source and dual 3-chip cameras, a master console where the operating surgeon sits, and a moveable cart, where 2 instrument arms and the camera arm are mounted. The camera arm contains dual cameras and the image generated is 3-dimensional. The master console consists of an image processing computer that generates a true 3-dimensional image with depth of field; the view port where the surgeon views the image; foot pedals to control electrocautery, camera focus, instrument/camera arm clutches, and master control grips that drive the servant robotic arms at the patient's side. The instruments are cable driven and provide 7 degrees of freedom. This system displays its 3-dimensional image above the hands of the surgeon so that it gives the surgeon the illusion that the tips of the instruments are an extension of the control grips, thus giving the impression of being at the surgical site.

Prresentation will demonstrate impressive videos for hysterectomy, lymph node dissection and various gynecologic procedures, performed by Da Vinci robotic system.

Conclusion: Although still in its infancy, robotic surgery has already proven itself to be of great value, particularly in areas inaccessible to conventional laparoscopic procedures. It remains to be seen, however, if robotic systems will replace conventional laparoscopic instruments in less technically demanding procedures. In any case, robotic technology is set to revolutionize surgery by improving and expanding laparoscopic

procedures, advancing surgical technology, and bringing surgery into the digital age. Furthermore, it has the potential to expand surgical treatment modalities beyond the limits of human ability. Whether or not the benefit of its usage overcomes the cost to implement it remains to be seen and much remains to be worked out.

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Post Operative and Post Partum Depression among Low Social Class in the North of Jordan

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Objectives: To assess the relationship between postpartum maternal depressive symptoms after normal vaginal delivery and Caesarean section within 6-monthes post natal period.

Method and material: This study was conducted at prince Rashed hospital over one year period. The study includes 124 women, with gestational age of 34 weeks and above, who had no previous history of any depressive symptoms, data were collected directly from our patients and previous medical files .we followed them during pregnancy and whole post natal period for any mood changes, psychological disturbances and depressive symptoms. Two groups where studied, women who had normal vaginal delivery and women who had caesarean- section.

Results: out of 124 pregnant women (14%) 17 patients delivered by caesarean section and 13 women who had normal vaginal delivery, developed mild to moderate attacks of depression and personal instability including irritability and abnormal behaviors. and 3% (3) patients developed sever depression and abnormal risky behaviors, all of them gave birth to female babies..

Conclusion: Depressive symptoms and abnormal psychological behaviors were common after normal vaginal delivery, caesarean section , and mainly those had female babies . Due to small number of patients, we recommend further studies to support our results.

300
Normal Pulmonary Artery Pressure in Pregnancy

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Objectives: To establish a reference range for maternal pulmonary artery systolic pressure as determined by Doppler transthoracic echocardiography.

Methods: Doppler transthoracic echocardiography from a clinical database of 113 asymptomatic healthy women in different stages of pregnancy was studied. A normal transthoracic echocardiography was based on normal cardiac structure and function during complete Doppler echography studies. The pulmonary artery systolic pressure was calculated using the modified Bernoulli equation, with right atrial pressure assumed to be 10 mm Hg. However, it was not corrected with BMI and wall thickness.

Results: In about 30 percent of subjects included in this study, the PASP was >30 mm Hg. In some women the upper limit of PASP attained 40 mm Hg.

Conclusion: The findings of this study support the use of pregnancy-corrected values in establishing the normal range for PASP.

301
Obstetric and Gynaecology Experience in Post War Gaza: Problems with Health Care Provision to Women

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Objectives: To describe our Obstetrics and gynecology experience in the immediate post war Gaza strip and to highlight major problems in health care provision to women.

Methods: In this presentation we review the services provided to women by the

obstetrics and gynecology team in the first Jordanian field hospital sent to Gaza in January 2009. Clinic attendance, inpatient admissions and Operations performed are presented. Major deficiencies are highlighted. Figures regarding local health care provision to women and problems caused by the siege are also presented.

Results: Over a two months period 1700 women were seen in the clinic. Antenatal care (650) and (1050) gynecological consultations. The later was due to infertility in 30% cases, menstrual disorder (35%) and others. Twenty four major operations and 55 minor operations were also performed. These included few chronic and neglected cases due to lack of surgical and anesthetic expertise (uterine prolapse, uterine fibroids and ovarian masses).

Conclusion: Gaza is a special population with special problems. The siege has affected the medical resources (equipment and drugs), but also resulted in a decline in training as doctors find it extremely hard to travel.

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2009 Novel Swine- Origin Influenza A(H1N1): A Study of Pregnant Women Admitted to Queen Alia Military Hospital

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Objectives: This study was undertaken to identify the frequency, risk factors and the complications of novel influenza A (H1N1) infection in pregnant women admitted to Queen Alia Military Hospital during 2009 pandemic.

Methods: A total of 133 pregnant women were admitted to Queen Alia Military Hospital suspected to have novel Influenza A (H1N1) Infection, Data was collected from their records. They were divided as confirmed positive and unconfirmed groups. Data was analyzed in terms of Age, gestational age, Symptoms, admission to ICU, and outcome.

Results: Most of the patients presented with flu like symptoms, and fever. Novel Influenza A (H1N1) Infection was confirmed by polymerase chain reaction (PCR)in 56(42%)of the total patients. 33(59%) of them were below the age of 30. 45%(25) were in their third trimester,39%(22) in the second ,and 16%(9) in the first). Of the other 77 women, 40 were tested negative and 37 not tested because of lack of availability of the test at the time of presentation. 65 cases had pneumonia proven by chest radiograph, 40 in the PCR positive group and 25 in the negative or not tested group. Pneumonia was more common in the above 30 years old (43 cases) and in late pregnancy (45 cases).Five needed mechanical ventilation. All were beyond 22 weeks of gestation. All died. Four had positive PCR testing and one was negative. All had resistant respiratory failure refractory to mechanical ventilation and intensive care supportive measures.

Conclusion: Pregnant women are at high risk of novel influenza A (H1N1) infection. Significant numbers were complicated by pneumonia and death. The complications increase with those approaching term and the older pregnant women. We recommend vaccinating all the pregnant women as soon as it is possible whenever endemic occurs. Further studies should be done to clarify the increase risk in this group of patients

Hall F Session 1
Community Medicine

303
The BIG Idea for Sustainable Health and Healthcare

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Health care systems in virtually every country in the world are in deep trouble. Many people do not have ready access to appropriate services when needed, and are not benefiting from for our knowledge about what determines health. This is in spite of various efforts at restructuring and integration, and rapidly rising investments (expenditures) in health care. In the Province of Ontario (Canada), we have moved from 32% of the provincial budget expenditures on health a decade ago, to 46% today (2010) and upwards with a projection that by the 2040s the proportion

of government spending will be 100% on health. The epidemic of diabetes alone will drive health expenditures in Ontario to above 50% within the next five to ten years. At this point, the system may likely implode. Every country including the Middle East is facing a similar dilemma. Fresh thinking and action are urgently needed – but how? This presentation will give an overview of a way forward by highlighting innovations for 'keeping more people healthier longer'.

304
National Survey on Waterpipe Use and other Risk Factors for Cardiovascular Disease in Egypt 2002

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This study reports the results of a 2002 national survey conducted by the Ministry of Health and Population in Egypt on tobacco and other risk factors for cardiovascular disease. The prevalence of overall smoking among adult males was 47% (34% cigarettes, 10% waterpipes, 3% mixed), while smoking prevalence among adult females was less than 1%. Remarkably, this survey of 6,950 adults revealed a significantly greater prevalence of abdominal obesity among waterpipe smokers compared to non-smokers. The data further predicts that tobacco-related mortality and smoking prevalence are both increasing in Egypt, with a prominent decline in the younger cohort in the mean age of regular smoking initiation. If such trends continue, Egypt and other nations in the region with similar patterns will experience longer lifetime duration of smoking among these young smokers, and consequently increases in the burden of smoking-related diseases.

305
eHealth Solutions for Improving Patient Outcome and Revitalizing Healthcare Quality

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Imagine a world in which every action of the health system is driven by our needs, where the resources available are spent keeping us as healthy as possible for as long as possible. The best available technologies are used to keep our health information up to date, to support our decisions, and to ensure open and efficient communication with those who are involved in our care and health promotion. As people collaborate across institutional and professional lines, healthcare resources aren't overloaded, so everyone is getting the best people-centered care.

What will it take to achieve this vision? How could we leapfrog - creating a health system that harnesses the power of eHealth innovations?

This presentation will describe a Community Living Laboratory in Toronto serving over 260,000 people where leading researchers and business innovators are joining forces, first in Ontario and soon throughout the world, to harness the power of eHealth technologies. Components of the eHealth are being assembled, refined, tested and scaled up, under controlled conditions. The initial thrust is on diabetes management and prevention. Mobile technology (Blackberry) is used with personal health coaching to motivate health behavior change regarding nutrition, physical activity, blood glucose monitoring and mental health.

306
Creating a New Medical School: Opportunity for Innovation

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York University is in the process of creating the York Medical School (YMS) as a novel model of education and research. Indeed, York will change health delivery through the education of primary care and generalist physicians who, by working in teams and in partnership with the community, will actively improve health and health outcomes of the patients and population they serve. The YMS will focus on research questions that lead to sustaining health and better patient care outcomes. Specifically, the York Medical School will:

- Improve health and health care outcomes for the population through the education of outstanding physicians who act as full partners with the community and with all members of the health team;

- Prepare physicians who will lead health system change by focusing on the primary care and public health needs of the population;
- Educate ethically focused generalist physicians who integrate the social determinants of health with an understanding and application of the latest science and technologies to provide better health interventions;
- Educate, using innovative interprofessional platforms and opportunities, confident, competent and highly skilled generalists who will excel in the provision of exemplary care in a population and patient centred approach;
- Maximize the use of information technologies to define curriculum content and delivery at the point of health service using an evidence- and inquiry-based and community-based curriculum;
- Support physicians during their careers to ensure that they remain current professionally and technically and for career changes through ongoing professional development, mentorship and leadership training;
- Engage the global community through education and research twinning and partnership and prepare students and graduates for a lifetime of involvement in global health issues.

Hall F Session 2
Military Medicine

307
Czech Military Aeromedical Service, its Territorial Civilian Coverage and Military Operational Tasks

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Objectives: To describe the main task of the Czech Military Aeromedical Service regarding the following : a) On call emergency flights on 24/7 bases in favor of civilian population b) Training Centre on Anesthesiology, Emergency and Flight Medicine c) Military operational tasks Prove advantages „learning by doing" approach for pre-gradual trainees and graduated anesthesiologists from military hospitals .d) Prove advantages of work on short call bases with different equipment on board aircraft for specific skill set development's. e) Describe cooperation on the territory of the Czech Republic with civilian providers) f) Present statistical data on the number of flights and assisted civilian population) Present statistical data on the most common diagnosis of medically assisted civilian population.
Methods: Exploitation of the relevant statistical data collections and case stories from the Military Aeromedical Service
Results: Military Aeromedical Services participates in health education of military physicians specialized in Emergency Medicine and Anesthesiology Core staff made responsible for strategic medical evacuations from military operations abroad and support military exercises on the territory of the Czech Republic Part of core staff permanently deployed in operations. Significant number of the treated civilian and military population will be presented in the conference session.
Conclusion: The Czech Military Aeromedical Services provide benefit for both civilian and military medical service patients. Emergency Aeromedical coverage in the Western part of Czech territory is in favor of civilian population pool of military medical personnel with broad skill set. The medical support assurance to the deployed military forces is of high level.

308
Studies of Educational Curriculum about Operational Medicine and Management of Military Health at the Gulhane Military School of Medicine

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Background: The main mission of military health organization is to maintain health and activeness of its manpower. To ensure this, armed forces of countries establishes health organizations, which is able to do so. The main personnel in these organizations are military physicians. They have different missions as commander of medical company, physician of headquarter, director of health division, etc.
Objectives: To determine the difficulties that military physicians experienced faced during their duties in military fields and to improve their of educational levels.
Methods: A cross-sectional study was conducted on a randomized sample where one of every two military physicians who completed military field duty and serve in first year of residency in different clinics were included in this study. Corresponders completed a self-reported questionnaire which contains questions on difficulties in medical service during military field duty.
Results: A total of 108 military physicians, 72 % experienced difficulties in formal correspondence, %83 complained frequent hygiene inspection, %70 complained frequent sampling to analyze water, %76 complained frequent periodical medical inspections, %30 experienced problems to preserve and apply vaccines. Military physicians have a lack in education for their field mission and assignments. About 80% of the participants think that their occupational skills needs to be improved and (%71) feel themselves inadequate in military correspondence and administrative activities. Statistically significant differences were found between force and occupation skills improving needs, service duration and training needs for disaster and humanitarian assistance medicine.
Conclusion: Further studies to determine educational needs and demands for military physicians by considering all possible types status assignments which they would assign with relevant measures are needed There is also a need to determine the national curriculum in terms of how education must be given and related to planning of operational medicine, medical tactics, administration and organizations as there is a basic difference between military medicine and traditional medical education.

309
Medical Support for Counter Piracy Operations

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Objectives: To describe the process by which the U.S. Navy provides a resuscitative surgical capability aboard ship in a medically austere environment in support of counter piracy operations. The presentation will include a discussion of the nature of the piracy problem, remote care for hostages, medical considerations for captured suspected pirates, trauma care afloat, and aeromedical evacuation of casualties.
Methods: The need to provide trauma care aboard a vessel of opportunity, rather than one specifically designed with an inherently large medical capability, has been a pressing need of the U.S. Navy for many decades. With advances in medical treatment and technology, it is now possible to place a medical team aboard a vessel of opportunity and perform life-saving resuscitative surgery.
Results: The U.S. Navy developed an 9-person Expeditionary Resuscitative Surgical System which is lightweight and compact, allowing it to be moved from ship to ship or ship to shore to provide emergency trauma surgery for counter piracy and other special operations as required.
Conclusion: The Expeditionary Resuscitative Surgical System has met all the trauma care requirements of the counter piracy task force with minimal medical manpower or expenditure of resources. Standard Operating Procedures (SOP) were developed to address the medical concerns of suspected pirates and much has been learned over the past year of counter piracy efforts.

310
Combat Medics: Italian experience and law endorsed

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For some years now the Italian Armed Forces have been constantly involved in difficult military operations which often take place in dangerous international situations. Such activities require the continuous updating and adjustment of the military instrument. Operational scenarios have dramatically changed over the last few years, and the deployment of units confronting the enemy on a well-defined front line is less and less probable.

In brief, the confrontation among regular armies has been replaced by low-security, low-conflict scenarios, strictly related with the impressive rise in the number of sudden, isolated attacks with a high damaging coefficient carried out by individuals or small groups which can be defined as terrorism or urban guerrilla acts.
On the other hand, isolated small military units, acting away from their deployment bases, are also used by regular armies involved in response operations to control the territory. At present Italian soldiers involved in out-of-area operations are deployed in theatres characterized by a considerable extent of the field of action and difficulties in guaranteeing the presence of healthcare personnel to provide effective first-aid care for injured soldiers.
The change in the modalities of employment of such units therefore requires a transformation, at least in part, of the Military Health Care Service which should increase the mobility, flexibility and capability for forward deployment of both healthcare personnel and facilities. The latter should be smaller in size but capable to ensure high performance quality.
At international level, the analyses of recent "lessons learned" from operational theatres with high conflict situations revealed some gaps in first-aid medical care provided by healthcare personnel, especially immediately after the occurrence of trauma injuries. In this regard, most recently the Allied Command Operations' Medical Advisor has changed the schedule of medical evacuation and emphasised the need for good medical treatment in the first ten minutes after the injury occurs, replacing the "golden hour" concept with the one of "platinum minutes".
During the last military operations it has been noted that - from the physiopathologic point of view- poorly or non-controlled hemorrhage was the main cause of mortality.
As a consequence, it is mandatory to enable units involved in out-of-area operations to be self-sufficient in terms of medical equipment and technical ability in pre-hospitalisation emergency medical care. This, in order to ensure first-aid treatment immediately after the wounding and continuing care until the arrival of medical personnel.
On this basis, the Military Health Care Service started a project aimed at creating the "Combat Medic" profile, referring to members of the operational units who are appropriately trained to provide life-saving first aid in operational theatres abroad.
Combat medics - that have been operational for a long time in countries such as the U.S.A., UK, Israel and, more recently, the Czech Republic - will increase the capability for immediate healthcare response in assisting the wounded.
As a result of this lengthy planning activity a Memorandum of Understanding was signed on 17 November, 2008 by the Defence General Staff for the Ministry of Defence and by the Quality Department-General Directorate for Human Resources and Healthcare Professionals for the Ministry of Labour, Health and Social Policy.
We will soon start selecting and preparing military personnel. At the same time - in order to guarantee the highest efficiency and safety level in the treatment of casualties, in compliance with medical evidence criteria and international models and guidelines established by scientific associations - practical training programs for both combat medics and military healthcare personnel will be enhanced.

Hall F Session 3
Community Medicine

311
Tobacco Epidemic in EMRO and Developing Countries

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Tobacco use is widely acknowledged as the single most important preventable cause of health problems worldwide. Despite this consensus, approximately 1.1 billion individuals smoke worldwide, and over 4 million people currently die of tobacco use each year (1). By 2030, the total number of smokers is expected to reach about 1.6 billion out of a global population of 8.5 billion, with approximately 10 million smokers dying annually. Current worldwide smoking patterns suggest that 500 million people alive today will eventually die of tobacco use (2). The problem is more serious in the developing world, where the number of smokers is expected to increase at the rate of 2% per year, outstripping

global population growth. On the other hand, tobacco consumption is decreasing in the developed world at an average of 1% per year (3). Of the estimated 10 million annual tobacco-related deaths expected by 2030, 7 million are expected to occur in developing countries (4). Unless current smoking is reduced, Smoking deaths will rise dramatically over the next 50 years. It is estimated that there is a large and growing number of deaths from smoking with world annual tobacco deaths between 2000 and 2030 from 2,2 millions to 3 and 7 millions in developed and developing countries , respectively. 1 in 2 of long-term smokers will be killed by their addiction and 1/2 of deaths occur in middle age (35-69). Smoking accounts for much of the mortality gap between rich and poor sonce Smoking is more prevalent among non educated sectors of all societies . The economic impact of smoking is not only reflected in personal losses of years of healthy life and associated treatment costs governments intervene. Important factors affecting control of tobacco use is addiction nature of tobacco use and youth onset of smoking when there is a definite lack of information and unwillingness to act on information. In most of Countries in the EMRO region, smoking among males is between 25 % in many countries and 62 % in Jordan, while among females it is much less between 1% in Oman and 7.9% in Jordan. If the current rise in smoking pattern is not met with strong control strategy, levels among youth is expected to result in future adult prevalence that is at least 50% higher than current levels in most of the EMRO countries. Emerging tobacco hazards in China: Early mortality results from a prospective study in China including more than 299.000 thousand individuals (and the accompanying retrospective study) show that by 1990 smoking was already causing about 12% of Chinese male mortality in middle age. This proportion is predicted to rise to about 33% by 2030.
To provide evidence of country specific magnitude of impacts of tobacco on health, a study was done in Egypt to estimate the burden of tobacco use in the country on mortality and morbidity: in 1999, it was estimated that 23,000 deaths annually (8% of total adult deaths/ year) were due to cigarette smoking.. (among overall mortality of 400,000 Total deaths, those among ≥35 Years were only 302885 of wich smoking related Deaths were estimated at 22862 or 8% of total deaths (13% in Males, 1% in females), In 2004 among an overall mortality 430,000 with total deaths ≥35 Years were 348501 among which smoking related deaths were estimated at 37533 or 11 % (19% Males, 1.2 % Females). Smoking was responsible for an overall 484196 DALYS in Egypt in 2004 representing an average loss of 13 years for each smoker's life due to early premature death and diseases associated with smoking. Current factors hindering effective interventions in the EMRO region include; acceptance by Health Officials of Smoking Behavior and smoking is perceived as not a priority risk to health. Lack of Funding to initiate systematic and regular continuous actions and media campaigns with absence of data on burden due to tobacco use are behind lack of initiative from Governments.

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Pandemic Novel Influenza A (H1N1) Infection Experience At Queen Alia Military Hospital

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Objectives: The purpose of this review is to analyze the evidence concerning demographic, clinical, diagnostic laboratory and radiological data, prevention, and treatment of novel influenza A (H1N1) infection. In addition, we propose measures and efforts implemented at Queen Alia Military Hospital for the management and control of this pandemic.
Methods: This is a retrospective review that has been conducted on all pandemic novel influenza A (H1N1) infection cases that presented to internal medicine department at Queen Alia Military Hospital during the period from 1st of July 2009 until 1st of January 2010.Medical records were retrieved and reviewed, Data regarding demographic, clinical, diagnostic laboratory

and radiological information, prevention, and treatment were abstracted in a special form prepared for this purpose, results were concluded.

Results: A total of one thousand pandemic novel influenza A (H1N1) infection cases were managed by the medical team during the mentioned period, five hundred and forty cases (54%) were females and four hundred and sixty (46%) were males. The mean age was 33 ±17 years. The duration of symptoms before presenting to hospital was less than two days in 80% of the cases and it was prolonged more than one week in 10% of the cases. One hundred and fifty patients (15%) were admitted to hospital and thirteen percent of them (twenty patients) needed intensive care unit. The most common cause of admission to hospital was pneumonia in eighty percent of cases. Acute respiratory failure was the main indication for intensive care unit in ninety percent of the cases managed there. Twelve patients (60%) of those who needed intensive care unit presented to hospital late (duration of symptoms before presentation was more than one week). Polymerase chain reaction was done for seven hundred patients (70%) and it was positive in five hundred patients of them (71%).Leucopenia was found in 80% of admitted cases and thrombocytopenia in 50% of the admitted cases.

Conclusion: pandemic novel influenza A (H1N1) infection is considered a very mild illness in the great majority of cases but still with few cases of high morbidity and mortality. Preparedness of health authorities should be kept in the future to manage any new waves of this pandemic.

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Chemical Warfare Mass Casualty Management in Chemical Terrorism

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Objectives: To describe the Field Medicine Department experience in chemical warfare mass casualty management and in chemical terrorism events

Methods: The information presented is the cumulative results of experience acquired during several military exercises and training on how to receive and manage chemical warfare mass casualties.

Results: will be presented in the conference session

Conclusion: Enhance awareness about chemical terrorism during a chemical event involving a large number of casualties including hospital plans, communication and mass casualty management are important factors which is extremely needed in Field Medicine .

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Role of Jordanian Aeromedical Evacuation during War Times (Lebanon 2006)

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Objectives: This study was conducted to describe the readiness and capabilities of the Royal Jordanian Air Forces and Royal Medical Services in urgent aeromedical evacuation of war victims during Israeli-Lebanese conflict (2006.)

Methods: This study is is a retrospective review which was conducted during a period of one month of aeromedical evacuation trips to and from Lebanon by reviewing and analyzing the records of Royal Jordanian Aeromedical Evacuation Center during the period of (22) July to (21) August 2006 at the time of Israeli-Lebanese conflict.

Results: Three (C-130) aircrafts were prepared for aeromedical evacuation with qualified teams consisted of flight surgeons and flight nurses and equipped medically with special aeromedical kits, including a Mobile ICU in each aircraft, suitable for on- site treatment and the capability of evacuation of total number of at least (150) patients per day. Ten (10) aeromedical evacuation trips were performed during that period, and (134) patients were evacuated. Most of the victims were from South Lebanon and minority of patients could be evacuated although of the fully preparedness to treat and evacuate more cases.

Conclusion: Continuous training, efficient

equipment, and sufficient manpower gave the capability of the Royal Jordanian Air Force Medical Evacuation Center to have efficient readiness and preparedness for aeromedical evacuation of war victims. Co-operation with Intraregional Aeromedical Evacuation is of great value in saving lives.

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Magnitude of Hepatitis Infection in EMRO, Africa and Egypt

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HCV has been identified as a major cause of chronic liver disease globally, including cirrhosis and liver cancer with an estimated 3 to 4 million persons newly infected each year due to nosocomial exposures (e.g. blood transfusions, unsafe injection practices) and high-risk behaviors (e.g. injection drug use). The prevalence of HCV infection in some countries in Africa reach levels above 10% of the total population with levels above 30% of adults in rural areas as Egypt. With a total population of over 600 millions in 1999, WHO estimated that 5.3% are infected with HCV. While this figures gives an estimate of 32 millions of HCV infected individuals for whole Africa, more than 8 millions of those (25%) live in Egypt with a little over tenth of the population size. There are approximately 50 million chronic carriers of hepatitis B virus (HBV) in Africa, with a 25% mortality risk. While in some countries as sub-Saharan Africa, carrier rates range from 9-20%, in Egypt the carrier rate is only 2-4%.

HCV infection was detected in 4.2 % of a study of adults living in Tunisia, Senegal, Burundi and Madagascar, in 51 % of patients suffering from liver cirrhosis and in 37 % of patients suffering from primary liver cancer (HCC). HCC varies widely in incidence throughout Africa and the main risk factor is HBV (60-70%) and HCV (10-30%). There is a rising trend of liver cancer incidence in Egypt from 2.9 to 7.7 per 100,000 population in between 1987-2004. This rate is estimated to double again in the next 20 years. Many studies have suggested that HBV transmission in Africa occurs predominantly in childhood, by the horizontal rather than the perinatal route. The exact mode of transmission is uncertain but probably involves percutaneous infection through saliva or traces of blood, as well through unsterile needles, tribal scarification, and other possible vehicles. In Egypt and in other African countries, adult HBsAg carriers have a low rate of HBeAg positivity, compared with those in the Far East, which may account for the relatively low rates of perinatal infection.

While HBV transmission has dropped in many countries after HBV children vaccination programs, chronic HBV liver disease and cancer would take much longer to decline. Chronic HCV Liver Disease burden would require infection control strategy and case management programs since there is no vaccine in the near future.

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Risk Factors for the Development of Diabetes Mellitus in Chronic HCV Genotype 4 Infection

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There is enough evidence for the diabetes-inducing effects of HCV genotype 4, but the context of an ageing, under-active and overweight population may greatly enhance the effects of HCV causing diabetes. Most of the literature, to date, examining possible mechanisms for development of T2D among HCV-infected persons invokes processes of insulin resistance that result from disordered lipid partitioning with resultant metabolic dysregulation. In turn, insulin resistance (IR) has been strongly related to increased progression of liver fibrosis and pathogenesis of steatosis. In chronic HCV patients with genotype 1, IR and overt diabetes are major determinants of advanced fibrosis, regardless of the degree of steatosis.

The prevalence of diabetes in some countries of the Eastern Mediterranean region averages around 15%, with a rising pattern with age up to 40–50% in the age group 55–64 years and an extraordinarily high prevalence of hypertension, overweight, sedentary level of activity and hypercholesterolemia that contribute to metabolic syndrome and exacerbate the risk of atherosclerosis and coronary artery disease.

There is a strong evidence linking the development of T2D with HCV infection with observations that support a direct pathogenic role of HCV genotype 4 in pathogenesis of T2D but with stronger

role of obesity and dysregulation of fat metabolism than duration of HCV disease or age.
The temporal relationship of this association was shown with a cumulative 7-year incidence of T2D twice that among anti-HCV seronegative patients

Hall F Session 4
Preventive Medicine

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Childhood Malignancy in Jordan

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Objectives: To determine the annual incidence rate of childhood cancers in Jordanian population and to describe their main epidemiological characteristics through the year 2008.
Methods: This study is conducted by reviewing the data from the Jordanian National Cancer Registry 2008; where195 cancer affected children 0-15 years (109 males and 86 females) were reported. The crude incidence rate, 95% confidence interval, and standard error were calculated by a directly age-standardized Poisson approximation method and the world standard population expressed per 100 000 inhabitants. The 2008 civilian local population of Jordanian children estimated to be 2.8 millions, based on the 2008 census.
Results: The crude incidence rate cancer in Jordan is 9.3/100 000 children per year as of 2008 (95% confidence interval; 9.0-9.7). It is 10.2/100 000 for male children population (95% confidence interval; 9.6-10.7) and is 8.5/100 000 for female children population (95% confidence interval; 7.9-9.0). In the males, 0-5 year age group shows a relatively high age-specific rate, and then the rate slightly decreased until 10-15 years of age group. In females, 0-5 year age group show relatively low age-specific rate when they gradually increase afterward with age, to reach the peak rate at 5-9 years of age group, then slightly declined.
Conclusion: The annual incidence rate of the child cancers in Jordan is between 9.0-9.7 cases per 100 000 children per year as of 2008. The incidence of child malignancy decreases gradually with the age. However, the incidence of child malignancy was slightly more common in males.

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Iron Deficiency in Hashme Medical Center

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Objectives: To determine the frequency of iron deficiency anemia among children aged less than 6 year old who are seeking health care at North Hashme Medical Center. Amman-Jordan
Methods: Between the period June 2006 and June2009, 36000 children who are seeking health care at the north Hashme Medical Center were included in our study regardless social, educational, ethical backgrounds of the family. Venous blood was measured for levels of hemoglobin, ferritin, in children seen for well-child visits. Children with history of chronic illness, prematurity, blood dyscrasias, and acute illness were excluded. A written consent was obtained from mothers to let their children participate in the study. Approval was also obtained from the Institutional Review Board in the Ministry of Health
Results: Out of total children who are seeking health care, 12960 patients (36%) showed evidence of iron insufficiency. About 3600 patients (10%) were having iron deficient without anemia and 2520 patients (7%) had iron deficiency anemia.
Conclusion: The relatively high frequency of iron deficiency anemia found among children in this study is disturbing and suggests the need for greater efforts to minimize iron deficiency during the second year of life

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Epidemiology of Imported Malaria Cases among Jordanian Military Peace Keeping Forces, Liberia 2003-2009

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Objectives: To describe certain epidemiological characteristics of the imported malaria cases among Jordanian Military Peace keeping Forces, Liberia (2003-2009)
Methods: This is a descriptive review of the confirmed imported malaria cases during (2003-2009) reported to the Department of Parasitic and Zoonotic Diseases / Ministry Of Health in Jordan with collaboration of the Public Health and Preventive Medicine Department in the Directorate of the Royal Medical Services. This descriptive review include all Jordanian military participants tested for malaria at the Department of Parasitic and Zoonotic Diseases during 2003-2009 registry . A Peripheral thick smear was obtained microscopically examined to detect malaria parasites forms , upon their arrival to Amman Military Airport. Simple descriptive statistical methods was used
Results: A total of 3200 blood smears were tested; only 19 individuals (0.6%) had positive results. Out of the total number of 19 cases, 17 (89.5%) were infected with Plasmodium vivax, while only 2(10.5%), were infected with Plasmodium falciparum. There were no positive cases of Plasmodium malariae and Plasmodium ovale
Conclusion: The preventive measures which were applied by the participants for malaria control in the endemic areas, the commitment by the participants in taking their pre-exposure prophylaxis at the mission area and post- exposure prophylaxis compliance in Jordan were important factors in such a low frequency rate of malaria

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Extracting of Enterotoxin for Identified Strains of Staphylococcus Aureus from Meat of Some Poultry Slaughterhouses and Their Workers

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Objective: To isolate and identify Staphylococcus aureus strains and biotypes from samples of poultry meat and humans.
Methods: This study was conducted during the period from November 2008 to March 200 at Al Mosul University in Iraq. A total of 384 samples were collected from poultry slaughterhouses, meat samples were taken from the poultry breast and thighs. Swabs were taken from the skin of same poultry carcasses. Seventy-two human samples were also collected from the same slaughterhouses veterinarian workers' nose.
Different biochemical, differential and definitive diagnostic tests were used: Cultural media (Blood agar, Mannitol salt agar , Brain heart infusion agar ,Baird - Parker medium, Oxacilline agar , Vogel and Johnson Agar), RIDA SCREEN SET A, B, C, D, E using ELISA method, Slidex Methicillin Resistant Staphylococcus aureus Detection kit, Analytic profile index Staph ,Extraction of enterotoxin and antibiotic sensitivity test.
Results: A total of 138(36%) were positive for Staphylococcus aureus strains in samples isolated from both poultry and veterinarian workers' nose; 29.5% were positive for Staphylococcus aureus strains in samples isolated from poultry meat and 64% were positive for Staphylococcus aureus strains in samples isolated from veterinarian workers' nose. Enterotoxin extracted from the Staphylococcus aureus with types of toxins (A,B,C,D,E)was identified by ELISA in about (35%)of the samples. About 24% of the strains isolated from the poultry were Methicillin Resistant; however 56% of the strains isolated from Veterinarian workers were Methicillin Resistant. Sensitivity and resistance to specific antibiotics will be discussed in the presentation session.
Conclusion: The high frequency of Staphylococcus aureus toxins predisposes a public health risk and food poisoning problems. The similarity of the sequence of isolates from poultry meat and swabs from Veterinarian workers' noses indicated that bacterial source could be from human and /or poultry.

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Screening of Mental Health Status among Elderly Residents in Al-Salt Qasabah District - Jordan 2008

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Objectives: To describe and determine

the frequency of dementia and depression among the elderly residents at Al-Salt Qasabah District Jordan (2008).

Methods: A descriptive cross-sectional survey was conducted at Al-Salt Qasabah. A total of 320 elderly aged 65 years and over were face- to- face interviewed using a standard questionnaire to determine the mental status among the study group. Data were analyzed using the SPSS program.

Results: Sixty-six percent of the elderly are married .Illiteracy rate among elderly is 60.6%. Only 8.8 % of the sample lives alone. Thirty-seven percentage of the sample had dementia. 14 % of them had mild dementia; 8.4% had moderate dementia, and 15% had severe dementia, whereas 63% of the elderly were with normal cognitive function (no Dementia). Female elderly were more than male to have moderate and severe dementia and increasing age increases the probability of having dementia. About 32% of the elderly have depression. Female elderly had depression more than males. Those above 80 years ware more likely to had depression than those less than 80years.

Conclusion: The elderly need more attention. Non-Governmental Organizations and the Community had an important role in improving their mental status, and that will occur with cooperation between all stakeholders

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Depression & Coronary Heart Disease

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Objectives: Screening for depressive symptoms should be applied to identify patients who may require further assessment and treatment. A multispecialty consensus document constituted by the American Heart Association writing group reviewed the evidence linking depression with Coronary Heart Disease and provides recommendations for healthcare providers for the assessment, referral, and treatment of depression. Assessments conducted in the hospital indicate that 15% to 20% of patients with myocardial infarction meet Diagnostic and Statistical Manual of Mental Disorders, 13 criteria for major depression (duration since admission, no assessment of functional impairment), and an even greater proportion show an elevated level of depressive symptoms

Methods: The comprehensive review by a Panel of the National Institute of Mental Health evaluated numerous instruments, among the one recommended for its easy of use and acceptable PHQ 9, of which the first 2 items can be used to screen the Coronary Heart Disease

The response options for each of the nine questions are: 0=Not at all; 1= several days; 2=More than half of the days; 3=nearly every day. Question 10 asks to rate the symptoms as 'Not at all difficult', 'somewhat difficult', 'very difficult', 'extremely difficult'. We score the Coronary Heart Disease patients by using the Patient Health QuestionarrePHQ-2 if yes to any of the 2 questions so it's recommended that all 9 PHQ items be asked.

Results: A PHQ-9 score >10 fellow up the patient after one month with education and support. A PHQ-9 score 9-10 this indicates mild to moderate uncomplicated depression. A PHQ-9 score ≥20 major depression and this needs referral for evaluation by professional in diagnosis and management of depression. If yes to Q-9 "suicidal" immediately evaluate for acute suicidal. If safe refer to professional. If at risk suicide escort the patient to the Emergency Department

Conclusion: Routine screening for depression among patient with Coronary Heart Disease is recommended and those with positive screening results should be evaluated by a mental health professional for diagnosis and management of depression. Patient with cardiac disease and depression should be carefully monitored for adherence to their medical care, drug efficacy and safety their cardiovascular and mental health.

Hall G Session 1
Surgical Travelers

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Role of Surgery in Palliative Care in Head and Neck Surgery

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Despite improvements in surgery, radiotherapy and chemotherapy there is a large group of patients who are not cured and require palliative treatment. Palliation is not always a passive process and I will describe some clinical cases which produce benefit from serious surgical intervention.

I will discuss in some detail the often terminal event of carotid artery rupture and review an audit of the management of carotid artery rupture in patients treated at the Royal Marsden Hospital over a 10 year period. I will suggest a tentative protocol for the management of this critical event and question whether or not there are alternative surgical stratagems

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Carotid Artery Stenting with Intravascular Ultrasound

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Vascular surgeons and interventionalists have been aware of the morphological nature of carotid artery disease for many years – and respected it. It has the potential to embolise to the brain and also to resist satisfactory balloon and stent dilatation. Virtual Histology Intravascular Ultrasound (VH IVUS) is the latest advance in IVUS imaging. It provides a color coded map of arterial wall plaque and distinguishes between different plaque types.

VH IVUS is performed during carotid stenting. It uses the different ultrasound frequencies reflected from the plaque which are then collated by computer software and assigned different colours (fibrous – dark green, fibro-fatty – light green, calcified – white, and necrotic lipid core - red). This provides a color coded map which is super-imposed on the original IVUS image and provides great detail of the plaque morphology. VH IVUS has been validated against true histological sections of the arterial wall with close correlation in the coronary arteries. Its application in carotid artery stenting is early, but it has the potential to provide important morphological information on the nature of the carotid artery plaque and make for a safer procedure.

VH IVUS has highlighted the concept of "vulnerable" plaque and is especially likely to influence coronary interventions (where vulnerable plaque is associated with plaque rupture and sudden death). The role of VH IVUS is also likely to impact carotid stenting. This is because it would be extremely helpful for the interventionalist to be able to anticipate how the plaque will behave at the moment of treatment. Will the plaque embolise? Will it resist complete stent deployment? Carotid angioplasty and stenting procedures could thus be tailored during the procedure around the plaque type which is identified by VH IVUS. Our early clinical experience with this new technology is presented.

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The Peritoneal Tumour Service, Manchester UK: Activity and Outcomes

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The Peritoneal Tumour Service (PTS) was established in Manchester, UK in 2002 as one of two nationally commissioned units for the treatment of Pseudomyxoma Peritonei of appendiceal origin (PMP). Over the last twenty years much has been learnt about this condition and radical cytoreductive surgery has been pioneered by Professor Paul Sugarbaker in Washington DC. More recently an International Expert Group has been established to promote a Scientific Consensus for treatment of Peritoneal Surface Malignancies including PMP and Peritoneal Carcinomatosis (PC) of colorectal, ovarian and gastric origin. The Manchester PTS has evaluated 568 patients over eight years with an age range of 16-95y (median 60). Major cytoreductive surgery has been performed with the addition of Hyperthermic Intraperitoneal Chemotherapy using Mitomycin C at 43C for 90 minutes. Outcomes of 244 cases includes five year tumour related survival of 86% with major morbidity of 9% and no 30 day mortality. An overview of the PTS including case mix, surgical techniques and outcomes will be described.

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A New Treatment for Compression Fracture of Spinal Vertebrae: Vertebroplasty and Kyphoplasty

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Vertebral compression fractures due to osteoporosis are predicted to increase significantly over the next fifty years with 37.3 million predicted by 2050. There are 97,000 hospitalizations per year for vertebral compression fractures, with a 10-30 day average hospital stay. There are more vertebral compression fractures each year than hip and wrist combined. The costs of conservative management such as bracing, pain medications and physiotherapy are considerable.
Balloon kyphoplasty and vertebroplasty are minimally invasive techniques which have a substantial role in the treatment of pain resistant to normal medical management in patients with vertebral body fractures, due to osteoporosis or many other pathologies.
This review of the process of setting up and running a new day case spinal surgical service in the South West of England to treat this previously under diagnosed cohort of patients, answers the questions any clinician wants answered about a new technique they may consider using or referring their patients for. Who does it work for? What does it involve? How does it work? Is it proven to be better than the current gold standard treatment? What are the potential complications and how often do they occur? What are the financial implications?
The indications, interventions and radiological and clinical outcomes of the first 30 patients treated through the South West Neurosurgical Unit during the last two years are presented.

Hall G Session 2
Surgical Travelers

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Gunshot Injuries of the Knee: Combined Orthopaedic & Vascular Approach

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From 1979-83, 10 patients were treated using this method. Most injuries were the result of gunshot. All vascular repairs were functioning at follow up and all fractures had united.There was a substantial reduction in limb ischaemia time and there were fewer fasciotomies. There were no deaths or amputations.

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Pushing the Boundaries in Colorectal Cancer

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Traditionally Surgery has been considered the best chance of cure in Colorectal cancer (CRC). Over the last decade the application of combined treatment modalities has resulted in downstaging of advanced unresectable disease to permit interval surgery with curative intent. In addition the management of synchronous and metachronous metastatic disease has been streamlined to capture patients who will respond to treatments in liver, lung and most recently peritoneal metastases. An overview and case studies addressing the current management of complex colorectal cancer will be presented.

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Modern Imaging for Endovascular Planning

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The success of any intervention relies on detailed planning, based upon patient fitness, the severity of disease and its location, access, known technical success of the chosen technique and knowledge of its long term results. A major part of that decision making is reliant upon high quality imaging. To minimise the risk of complication arising from imaging (which must be added to the overall procedural complication rate), non-invasive imaging is the method of choice. Whilst ultrasound is the mainstay of diagnosis in areas easily accessible such as carotid, its limitations prevent it providing a comprehensive overview of anatomy to allow decisions to be made on access, run off, etc.
Advances in computer technology have enabled fast acquisition and processing of large amounts of digital data, essential to capture the dynamic information from fast

flowing blood at high resolution in both CT and MR. This has enabled the detailed visualisation of disease – both intraluminal narrowing and vessel wall detail. Increasing attention is now paid to vessel wall disease, in particular plaque morphology, in the decision to treat and in the planning of which technique best suits the patient. Although ultrasound can give useful clinical information about plaque, the mainstay is MRI which can, for example, demonstrate intraplaque haemorrhage which can predict particulate embolisation during intervention. Clearly this is more critical in the carotid system than in the periphery, as the risks of embolic damage to the brain have such disastrous consequences.
Outwith the carotid territory, the decision to treat is largely based on the intraluminal tightness of stenosis and a knowledge of the anatomy for safe and effective access. CT and MR have been shown highly accurate in this area. A knowledge of run off vessels is crucial in the planning of an intervention as good inflow and good run off are important for success. With new blood pool contrast agents, MR demonstrates run off vessels in the calf in exquisite detail.
Functional imaging has begun to play a role in predicting stability of progressive vascular disease and the need for, timing of and risks of intervention. CT Positron Emission Tomography (CT-PET) combines CT with radionuclide imaging following the injection of 18Fluorodeoxyglucose. CT-PET will show active inflammatory change in the vessel wall and so has a role in aortic aneurysm treatment planning and in assessment of carotid plaque instability. Importantly, CT-PET may be of value in assessing the plaque stabilising effects of drugs such as statins.
Planning re-intervention has its own challenges for imaging. Metalwork from prosthetic devices can cause artefact on both CT and MR. In particular the metal markers put at the end of stents to improve their visualisation at implantation can lead to artefact on CT, obscuring subtle information such as intimal hyperplasia at the end of the stented segment.
Any planning of intervention based upon imaging is only as powerful as the judgement of those making the decisions clinically. Imaging as a planning tool works best in the framework of a multi-disciplinary meeting. At such formal clinical meetings, the combination of the imager, interventionist, conventional vascular surgeon and clinical team (and in different centres one or more of the roles may be the same person/people) works well to ensure the patient is selected for the most appropriate treatment and that sufficient information is available for planning. By utilising the latest imaging technology in a strong clinical context, the advances outlined above can bring great benefit to our patients with accurate planning and so enhanced success in their endovascular treatment.

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Endoluminal Grafting of Abdominal Aortic Aneurysms using the New Redeployable Anaconda Device

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Our experience with a re-deployable endograft and the use of intravascular ultrasound have improved the accuracy of placement of endografts in our institution. An endoluminal graft has been developed for abdominal aortic aneurysm exclusion with special features, which make this device easy to implant, and with great accuracy. It is able to be redeployed in the proximal aortic neck if initial deployment is unsatisfactory – either too close or not close enough to the renal arteries. Magnets gain rapid contra-lateral wire access.
The Anaconda device (Vascutek Terumo, Scotland) is a modular thin woven Dacron graft, which uses two hoop rings to seal the proximal aortic aneurysm neck. Metal pins prevent migration. Distal to the rings and pins the device is unsupported for a portion, which helps it conform to angulated or tortuous neck anatomy. Once the main body has been deployed by drawing back the outer sheath the endoluminal graft can be completely repositioned by controls in the handle of the delivery system. The device can be rotated, angulated and redeployed higher or lower in the proximal neck – an advantage in diseased / short / angulated aortic neck anatomy. Then a (north) magnet on a wire which already accesses the contralateral gate rapidly attracts and connects with a (south) magnet wire introduced from the contralateral femoral

artery. This magnetic technique provides extremely rapid access to the contralateral gate and limb extension is then performed to exclude the aneurysm.
Although this device initially appeared more complicated than conventional endoluminal grafts we have found it extremely easy to use and its advantages of redeployment and rapid contra-lateral cannulation make it suitable for a wider range of aortic aneurysms.
We also routinely use intravascular ultrasound to assess abdominal aortic aneurysms prior to endoluminal grafting. This provides very accurate diameter measurements for sizing devices and assesses the aneurysm morphology in addition to CT scanning. Our clinical experience with IVUS is also presented.

Hall G Session 3
General Surgery

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Single Incision Laparoscopic Surgery: SILS HPB Surgery

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Single-incision laparoscopic surgery (SILS) is an evolving technique and is being applied to an increasing variety of operations. The ergonomic difficulties of SILS include a loss of instrument triangulation and operating with camera and instruments in parallel. To date there is limited published data reporting on the SILS techniques. Here, we discuss the scope of the single incision surgical approach to hepato-pancreatico-biliary surgery, with a video demonstration of single incision laparoscopic left lateral segmentectomy for a solitary colorectal liver metastasis.

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How to Avoid Anastomotic Leakages in Laparoscopic Colorectal Surgery?

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In open or laparoscopic colorectal surgery two types of anastomotic complications present. There are the early complications such as the dehiscences or leakages on the one side and late complications such as strictures and recurrences on the other side. Many risk factors such as obesity, cardiac disease, diabetes mellitus, renal failure, hypoalbuminaemia, steroids, and rheumatoid disease have well been described. Other risk factors include the level of resection such as a low versus ultra-low anterior resection, gender, the presence of pre-op radiotherapy, radiotherapy, ... and much more to come. A pillar in the treatment lays in the prevention. The management of these complications will be discussed and some interesting cases will be discussed.

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New Procedures for Day Surgery: Bariatric Surgery

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Where do the boundaries lay in expanding bariatric services? Is it plausible to accommodate the morbidly obese in the day case setting, to successfully and safely perform bariatric surgery? How can we cater for this patient group in the day surgery setting? What is achievable – day case gastric banding, day case gastric bypass? Is there a role for SILS to improve patient outcome and facilitate early discharge?

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Parastomal Hernia Repair Using a Laparoscopic Modified Sugarbaker ! How I Do it?

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Parastomal hernias are a problem frequently encountered. They may actually present as problems of stoma care, difficulty with the fit of appliances or irrigation, leakage of the fluids produced, a significant cosmetic deformity, or as complications of the hernia, such as intestinal obstruction or strangulation. Though the majority of these hernias don't get to be repaired, many different surgical techniques have been described. One of these techniques is called the laparoscopic modified Sugarbaker technique. A presentation on the stepwise approach as well as a video will be presented.

Hall G Session 4
General Surgery

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Laparoscopic Video Session "Laparoscopic distal pancreatectomy"

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In this video session I will show a step by step approach to the laparoscopic distal pancreatectomy. Added, a brief presentation on the technique is presented together with some discussion.

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Laparoscopic Video Session "Laparoscopic Sigmoid Resection/ Low Anterior Resection"

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In this video session a step-by step approach to oncological laparoscopic sigmoid resection is presented.

Hall H Session 1
Urology

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Management / Surgery for Anterior Urethral Strictures

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The management of anterior urethral strictures can often times ultimately conflict with the obtainable results with surgery for anterior urethral stricture disease. In current years, there has been a tendency for many centers to employ minimally invasive techniques extensively, before ever considering surgery for anterior urethral strictures. The literature is now clear, that many "minimally invasive" interventions can very adversely effect the ultimate results of reconstructive surgery.
This statement, however, should not imply that there is not a place for minimally invasive surgery. Minimally invasive surgery would consist of dilation, internal urethrotomy (either cold knife or laser), the use of stents, and the use of home obturation protocols. The results obtainable with dilation and internal urethrotomy have been very nicely defined by a number of centers. Very briefly, should one expect dilation or internal urethrotomy to be curative, then the use of those modalities should be confined to the bulbous urethra for short strictures with relatively superficial spongiofibrosis. Thus, their use in the fossa navicularis and pendulous urethra would not be expected to cure the patient. What is also stated in the literature is that the results of dilation and internal urethrotomy are approximately equivalent; however, this statement does not truly compare apples to apples, and so this question remains a question. The concept of urethral stenting comes from the facts that in healing there are two forces in play, epithelialization in the area of the urethrotomy or dilation, and wound contraction. Stents can be expected to oppose the forces of wound contraction, and the concept thus is to oppose those forces while epithelialization becomes complete thus altering the ultimate potential for wound contraction. All stents are indicated only in the bulbous urethra. A major problem with the use of stents is the misuse of stents.
With regards to open reconstructive surgery, we are in an era where we have many modalities available to us. What is clear is that not all patients should be treated with minimally invasive procedures initially. The so called reconstructive ladder philosophy has been proven to be antiquated with regards to the management or surgery for anterior urethral strictures.
The literature is clear and there is little question that excision and primary anastomosis represents the gold standard method of reconstruction for anterior urethral strictures. Its use, however, is somewhat limited by the need to mobilize the corpus spongiosum, and thus with extensive mobilization, patients can have iatrogenically created chordee or penile foreshortening. However, excision and primary anastomosis is a highly versatile procedure, and should be considered initially in any patient that would appear to be a good candidate. The concept of vessel sparing excision and primary anastomosis has recently been looked at, and what is clear from early analyses is that vessel sparing excision and primary anastomosis provides equivalent success to the non-vessel sparing technique. In cases where excision and primary anastomosis is not

possible, then onlay techniques employing either grafts or flaps have been used. The literature suggests that the results of grafting onlay procedures are equivalent to flap onlay procedures, and obviously graft onlay procedures are technically much more straightforward. There is a place for staged operations, and those will be reviewed.
In this presentation, the audience would be expected to understand the anatomy of the anterior urethra and how it affects choices of surgical exposure, location of internal urethrotomy, and application of various procedures. The various procedures will be outlined in using illustrative cases and explained to the audience. Following the presentation, the audience would be expected to have good facility with the understanding of those techniques, and the understanding of the intermesh with anatomy and physiology of stricture.

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New Aaspects of Ejaculation and its Significance: Ejaculation Preserving Transurethral Resection and Laser Vaporesection of the Prostate

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Introduction and objectives: Clinical, physiological and anatomical findings lead to challenge the current theory of the ejaculation mechanism. Video-urodynamic observations in patients with opened bladder neck are able to ejaculate antegradely and patients with lost of ejaculation after retroperitoneal Lymphadenectomy presented a closed bladder neck. Anatomic and histological examinations could confirm a musculus ejaculatorius to bring into line the collicuclus seminalis, also shown in a transrectal ultrasound during ejaculation by Hermanbessiere 1998.
Due to the findings and understanding of ejaculation mechanism a new technique in TUR (epTUR-P) and Laservaporesection (epLaVaP) of the Prostate could be established.
This video is performed to present the functional aspects of ejaculation and the resection techniques.
Methods: Since 1996 in 197 Patients, aged 27 to 78 years an ejaculation preserving technique of the prostate is performed, since 2001 in 87 patients in a prospective study with 5 year control and since 2008 in 22 patients by Laservaporesection. The functional outcome is controlled by uroflow, residual volume, International Prostate Symptom Score (IPSS) and Live Quality index (LQI). The ejaculation is controlled for the first 50 patients by seminal fluid analysis and for all patients by questionnaire IIEF 5 +.
Results: In 92% of patients, treated by epTUR-P and epLaVaP for bladder outlet obstruction the orthograde ejaculation could be preserved. In seminal fluid analysis a reduction of volume of 30% is shown. Micturition symptoms shows a substantial improvement as objective parameters like uroflow and residual volume presented in table 1.

	Preop	Postop	Follow-up
IPSS	23	7	4.7
LQI	4.7	2	1.5
Uroflow [ml/s]	7	24	24
Residual [ml]	52	13	12.5

Conclusion: Ejaculation preserving treatment of the prostate by endoscopic resection is possible.
The presented techniques are suitable for ejaculation preservation.
The functional outcome is excellent and could be confirmed in long term follow up for epTUR-P.
The bladder neck is irrelevant for orthogradic ejaculation.
No incontinence could be observed.

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Current Concepts for the Management of Penile Amputation Injuries

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Penile amputation injuries are devastating injuries to say the least. The factors that influence what one might consider are how much of the penis has been amputated, does the patient present with the amputated distal portion of the penis, or does the patient present only with the proximal stump. Taking the last situation first, should the patient not present with the distal portion of the penis, then acutely, that patient needs to be closed either primarily or with grafting techniques with careful attention to creating a spatulated "neourethral meatus". Later these patients may be able to be salvaged with penile liberation and split-thickness skin graft reconstruction, or may require phallic construction.
In patients who present with the distal portion of their penis, then the choice is clear. Penile replantation should be accomplished by either macro techniques or microvascular techniques. These techniques will be detailed in the presentation.
With regards to techniques of phallic construction, these will be illustrated in detail; for most centers, forearm flap reconstruction has become the standard of care. There are some centers that continue to examine the use of the fibular osseocutaneous flap; the obvious advantage being the fact that it can carry a portion of the bone and ostensibly then have some inherent stiffness, and the disadvantage is the significant urethral complication rate using that flap. With regards to forearm reconstruction, the techniques utilized at the Eastern Virginia Medical School will be illustrated in detail. The current areas of concern and complication will likewise be likewise, and the current thoughts with regards to altering the complication rate likewise discussed.
Following the presentation, the attendees would be expected to understand the anatomy of the penis and how it interplays with regards to methods of reconstruction following penile amputation. Using illustrative cases, the attendees will have a good understanding of the initial management of penile amputation injuries, and also the options for subsequent reconstruction. Concerning phallic construction, those procedures will be illustrated in detail, and the current complications/pit-falls will likewise be discussed.

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Percutaneous Management of Large Renal Stones, Experience at Prince Hussein Ibn Abdullah Urology Center

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Objectives: The aim of this study was to evaluate and to review our experience in percutaneous nephrolithotomy (PCNL) in management of large renal stones.
Methods: Between January 2005 and December 2009, 786 patients underwent PCNL for treatment of renal stones at our center of which 92 patients (11.7%) with 108 renal units had big stone burden. All procedures were performed in prone position, after retrograde insertion of ureteral catheter, under fluoroscopic guidance for creation of the PCNL tract. 27F rigid nephroscope was used to identify the stones that were fragmented using electrohydraulic lithoclast. Stones fragments were removed by forceps and suction. 20F Foley catheter was inserted in all cases as a nephrostomy. Postoperative stone clearance was documented by KUB.
Results: 92 patients were treated (67 men and 25 women) with mean age of 41 years (range 17- 74 years).16 patients (17.4%) underwent bilateral procedures for bilateral stones with a total of 108 renal units. The average stone size was 4.9cm (range 3.0-6.8cm). The mean operative time was 75 minutes (range 55-100 minutes). 83 renal units (76.9%) were treated with PCNL monotherapy, 18 renal units (16.7%) required a second look for significant residual stones through the same tract after 72 hours, 7 renal units (6.5%) required a second look through a different calyx. Complete stone clearance by PCNL alone was achieved 89 renal units (82.4%), with ESWL for the residual small stones we achieved 91.6% stone clearance rate. The mean hospital stay was 3.7 days (mean 3-8 days). No serious complications were encountered. 9 patients required blood transfusion (8.3%), 18 patients developed transient postoperative pyrexia (16.7%) and three patient had persistent urine leak (2.8%).
Conclusion: PCNL is the first line treatment option for management of large renal stones. Selection of the patient, establishing percutaneous renal access, a well standardized technique and post-operative follow up are mandatory for early detection of complication and achieving a high stone clearance rate.

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Urethral Memokath and our Experience at Prince Hussein Ibn Abdullah Urology Center

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Objectives: Memokath is a thermo-expandable Nickel–Titanium alloy stent that is used to facilitate bladder emptying in patients with obstruction of the lower urinary tract that occur in a variety of benign and malignant conditions. It was first used in the prostatic urethra to treat bladder outflow obstruction. Subsequently, it has been utilized in the short-term treatment of Detrusor Sphincter Dyssynergia and, more recently, Memokath stents have been developed for use in urethral strictures and ureteral strictures. The Memokath is easy to place and easy to remove if necessary. It prevents tissue ingrowth between the coils and shows a low rate of encrustation. The aim of this study is to evaluate our experience in the use of memokath.
Methods: Between January 2008 and December 2008, a total of 19 patients underwent Memokath placement to treat various causes of lower urinary tract obstruction. Age ranged from 17 to 75years (median 45years). 17 patients had urethral stricture and 2 patients had prostatic enlargement. The stent was inserted under sterile conditions using cystoscopy in the operating room. Patients were followed for one to two years both clinically and by ultrasound to assess the bladder emptying and postvoiding residual urine the data was collected and analyzed.
Results: Urethral stenting helped to achieve complete vesical emptying in all 17 patients. All 17 patients became asymptomatic, with residual urine of less than 50 ml. There has been no migration or blocking of the stent lumen in any of the patients. With a follow-up of 12 to 24 months the success rate was 82.3%. Three patients lost follow up. All patients were satisfied with the procedure with quick relief of their symptoms.
Conclusion: The Memokath is easy to place and easy to remove if needed. It prevents tissue ingrowth between the coils and shows a low rate of encrustation. It is a safe and effective method of relieving lower urinary tract obstruction. These properties make it an attractive alternative in cases where a stent is needed temporarily or even for a more prolonged use.

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Actual Results of Intramuscular Intravesical Botulinum Toxin A Injection in the Treatment of Drug Refractory Non Neurogenic Detrusor Overactivity (NNDOA)

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Objectives: In drug refractory Non Neurogenic Detrusor Overactivity (NNDOA) the Intramuscular Intravesical Botulinum toxin-A-Injection (IIB-A-I) is an additional available and minimal invasive treatment option. After six years of single centre experience the effectivity, safety and long term results are presented.
Methods: From 2003 to 2008 in 170 patients suffering from videourodynamicly proven NNDOA the IIB-A-I with standardized schema (250 U Dysport in 10ml NaCl, 1ml/injection including bladder trigone) in local anesthesia is performed. A non randomized prospective evaluation 6 weeks post injection concerning life quality, micturition frequency, incontinence episodes by questionnaire and the functional bladder capacity, residual urine and morphological bladder situation by videourodynamics examination is worked out.
Results: With high satisfaction of the patients and without side effects a significant reduction of micturition frequency (from 18.8 to 9.7/day), reduction of incontinence episodes about 4 (5 to 1/day), decreasing of detrusor pressure from 30.7 to 21.1cmH2O ($p < 0{,}001$) and increasing of functional bladder capacity from 194 to 453ml ($p < 0.005$) was demonstrated. Residual urine increased

insignificant by 23ml on average above the baseline. The long term observation shows different durations of improvement. The median time to re-treatment is 7.66 month.
Conclusion: The effectivity and safety of the application of Botulinum toxin (IIB-A-I) in the management of NNDOA is confirmed after failure of conservative therapy also its efficacy has been observed on long term observation. IIB-A-I is a minimal invasive modality. By IIB-A-I there is a substantial improvement of objective and subjective micturition parameters. In NNDOA there is; by using an appropriate dosage, no significant residual urine and no vesico-ureteral reflux demonstrated. IIB-A-I be repeated according to recurrence of symptoms.

Hall H Session 2
Urology

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Detecting Voiding Dysfunction in Men - the Micturition Index as Simple, Mon-Invasive and Cost-Effective Tool

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Introduction: Diagnosing voiding dysfunction in men needs high expertise and special education. In particular for general practitioners (GP), there are no easy-to-use tools beside medical history existing to forward these patients to specialists for further diagnostics.
With the help of simple datas like voided volume, voiding time and bladder scan, voiding dysfunction can be detected with a high sensitivity, so these patient can be selected for special diagnostics.
Methods: After a retrospective statistical analysis of data of conventional urodynamics from 1980 till 2007, 3 groups of men were included into the appraisal. Group 1: men with non pathological conventional urodynamics (n=356), group 2: men with bladder outlet obstruction (n=3162), group 3: men with energy using processes of the bladder, i.e. urodynamically effective diverticulum (n=141).
After computerized evaluation, an equation got developed out of normal and pathological micturition data.
Results: It could be shown, that voided volume, micturition time and post void residual are adequate parameters for simple detection of voiding dysfunction in men without the use of special diagnostics, which needs special education.
By using this equation, over 92,3% of voiding dysfunction were uncovered as first step examination. Specifity was not evaluated because it was not the aim of this study.
This equation got developed:
Micturition index (MI) = voided volume (VV) / micturition time (MT) – radical quantity (√) of post void residual (PVR).
$MI = VV/MT - \sqrt{PVR}$
At this juncture, values of $MI > 10$ should be credited as non-pathologically, values of $MI < 10$ are a plea for further more invasive investigation like conventional urodynamics.
Conclusion: With the micturition index, it is possible to detect men with voiding dysfunction fastly, salutary, non-invasively and with a high sensitivity. If MI shows a pathological value, these patients can be sent by GP's or nurses to specialists for further investigation.
With this tool, men with voiding dysfunction can get detected earlier by GP's, so these patients can receive the effective treatment regime they need.

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Surgery for Pelvic Fracture Urethral Distraction Injuries

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About 10 percent of patients with pelvic fracture will present with urethral injury. The initial management of these patients is somewhat controversial, however, most feel that suprapubic diversion is appropriate, and the placement of an aligning catheter if possible beneficial. Whether or not an aligning catheters drastically alter the ultimate stricture rate is very controversial, but what is clear is that the placement of aligning catheters using current techniques

has very few down sides, and does have some potential benefits for the patient.
The technique for reconstruction of pelvic fracture urethral distraction defects is relatively straightforward, in most cases can be approached through the perineum. The use of techniques that require pubectomy have become antiquated; however, the use of partial pubectomy, rerouting, and development of the intercrural space, will all be illustrated and explained.
The vascular anatomy of the penis and in specific the corpus spongiosum will be reviewed in some detail. The use of preoperative vascular stratification will be illustrated. Current techniques of accomplishing that will be illustrated, and an explanation of the potential benefits explained. The surgery for pelvic fracture urethral distraction defects is very reliable, providing durable and excellent results. It is clear, however, that most of these patients should be referred to centers of excellence, where surgeons have almost daily exposure to this injury and these patients.
Following the presentation, the attendees should have a good understanding of the anatomy, particular to pelvic fracture urethral distraction. They should understand the concepts of preoperative vascular stratification, and will have a good understanding, via illustrative cases, of the techniques that are useful for reconstruction of these defects.

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New Neurophysiological Aspects after Passageric Sacral Nerve Block of S3 Segment

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Hypothesis / aims of study: The passageric uni- and bilateral sacral nerve block marks a temporary anasthaesia of the S3 nerval root. This minimal invasive intervention has value as diagnostical as well as therapeutical procedure and conduces predominantly to differentiate an painful bladder syndrome and a neurogenic and non neurogenic overactive bladder respectively.
Beside of that the passageric sacral nerve block has a therapeutic effect on several non-neurogenic overactive bladder.
Study design, materials and methods: The uni- and bilateral puncture of the foramina sacralia S3 take place under x-ray examination in prone position. To secure the location of the spinal canula, the nerval roots are displayed with 1 ml of contrast agent. In correct position, the nerval root got infiltrated with 5 ml 1% xylocain. The effect of the the passageric sacral nerve block can be observed immediately after injection on the dynamics of the urinary bladder with help of the video urodynamical examination. From 1980 till 2006, the passageric bilateral sacral nerve block was performed in 1237 patients with drug refractorical overactivity symptoms, as diagnostical examination as well as therapeutical procedure. Before the procedure, all the patients had an full urological examination (anamnesis with micturition diary, sonography, cystoscopy) and additionally got a video urodynamical examination before and immediately after the block. Unilateral block was performed in 50 patients to examine the effect of it. In 20 patients (10 patients with unilateral block, 10 patients with bilateral block) sensitivity of the mucosa was examined cystoscopically.
Results: Unilateral blockade of S3 led to paralysis of the ipsilateral half of the detrusor muscle, even the mucosa sensitivity was erased, except of the trigonal part, which still showed restricted sensitivity at all patients. Urodynamically it could be shown an ipsilateral acontractility, despite micturition could be triggered voluntarily with half detrusor contraction. In case of male there was residual urine, in case of female there was no residual urine. Bilateral blockade of S3 led to complete paralysis of the detrusor muscle and of the sensitivity of the mucosa, except the trigonal area, which still showed restricted sensitivity at all patients. Urodynamically it could be shown a total acontractility of the detrusor with consecutive increasing of the capacity at all patients except in cases of painful bladder syndrome. In these patients the bladder capacity didn't increase significantly. During the duration of the anaesthesia, the micturition could be triggered neither voluntarily nor involuntarily at all patients. In 917 patients with urgency and incontinence (non neurogenic overactive bladder) after fading away of the anaesthesia effect, there was a normalization of the micturition in 752 patients (82%). 47 patients with painful bladder syndrome (histologically diagnosed)

there was no changing of the symptoms after fading away of the anaesthesia. 188 patients with neurogenic overactive bladder (incomplete supranuclear lesion), there was an significant increase of the bladder capacity (235ml before to 630ml during the block).
After fading away of the anaesthesia, the same symptoms appeared again. In 85 patients with other diagnosis (i.e. pelvic pain syndrom, prostatopathy syndrome, unknown pain in the pelvic area), the block led to a significant decrease of the symptoms in 61 patients (72 %).
Interpretation of results: The point of emergence of the motor detrusor nerve is exclusively the S3 segment of the sacral bone. The innervation of the human urinary bladder shows relatively strict lateral separation. By block of the S3 segment, the motor activity of the bladder can be completely eliminated, even the sensivity of the mucosa except the trigonal part. Additionally it could be figured out video urodynamically that there was no morphological changes in the functional urethra during the block. The passageric sacral nerve block showed no effect in painful bladder syndrome (no significant increase of the bladder capacity, no change in symptoms). In non neurogenic overactive bladder (urgency and incontinence) the passageric sacral nerve block showed an significant increase of the capacity during and after the block. In neurogenic overactive bladder the passageric sacral nerve block showed only significant increase of the bladder capacity during the block. In patients with unclassified syndromes of pelvic pain, the passageric sacral nerve block seems to be a good alternative treatment option with minimal invasivity.
Concluding message: The motoric and sensitive innervation of the detrusor muscle is located in S3 segment and strictly separated. An exception is the trigonal sensitivity. The passageric sacral nerve block is a minimal invasive and a easy to do method to distinguish between painful bladder syndrome and neurogenic and non neurogenic overactive bladder respectively.

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Long-Term Follow up for Laparoscopic Retropubic Penile Deep Dorsal Vein Ligation for the Treatment of Erectile Dysfunction

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Objectives: To evaluate the long term results, efficacy and safety of laparoscopic retropubic penile deep dorsal vein ligation in the management of erectile dysfunction due to veno-occlusive dysfunction.
Methods: During the period from January 2001 and December 2008, a total of 16 patients with veno-occlusive dysfunction severe enough to make vaginal penetration impossible, underwent laparoscopic retropubic penile deep dorsal vein ligation. Success was defined as the ability to achieve vaginal penetration without any medical or mechanical aids. The patients were followed up from 13-96 months.
Results: The operative time ranged from 90-120 minutes. No intraoperative or postoperative complications occurred in any of the patients. At long-term follow-up from 13 to 96 months, 10 of the 16 patients (63%) had normal return of erectile function (grade 1-2), 2 patients (13%) needed Sildenafil for satisfactory sexual function. The remaining 6 patients showed no significant improvement after surgery but did not show deterioration in their condition.
Conclusion: We conclude that erectile dysfunction due to veno-occlusive dysfunction; can be treated successfully by laparoscopic ligation of penile deep dorsal vein. This technique may become a good choice for treatment of this problem.

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Retrograde Intrarenal Lithotripsy for Small Renal Stones in Prepubertal Children: Personal Experience

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Objectives: Advancements in ureteroscopy have now given the urologist virtually unlimited access to calculi at all locations in the upper urinary tract. Retrograde intrarenal lithotripsy is a new modality to treat upper urinary tract stones in children. In this retrospective study we present our experience in retrograde intrarenal lithotripsy in children over 30 month period.
Methods: During the period from January 2007 through June 2009 all children with renal stones less than 1.5cm who underwent retrograde intrarenal lithotripsy at Prince Hussein Urology Center, Royal Medical Services, Amman, Jordan, were included in the study. All patients had a Double J catheter inserted 2-4 weeks prior to the procedure. Ureteroscopy up to the renal pelvis was performed and fragmentation of the pelvic stones was performed by electrohydraulic lithotriptor. The patients were followed up for results and complications.
Results: Fifty six children were included in the study. The average age was 8.2 years. Male to female ratio was 2.1:1. The average stone size was 1.2cm ranging 0.9-1.5 cm. 12 patients (15.5%) had bilateral stones. 78 procedures were performed. 12 patients underwent bilateral procedures for bilateral disease in separate settings. 9 patients (16%) needed a second session for residual stones. Only four patients (7.1%) needed a third session. The clearance rate was 94.8%. Three patients (3.9%) developed upper urinary tract infection after ureteroscopy; one patient (1.7%) developed frank hematuria postoperatively that was treated conservatively. No residual stones or other complications were detected after an average of 34 months of follow up.
Conclusion: Pediatric urolithiasis is an expanding field. The best mode of treatment remains a challenge. Retrograde intrarenal lithotripsy is a new procedure with excellent results for renal stones in children. It is less invasive than other modalities with few complications.

Hall H Session 3
Neurosurgery & Plastic Surgery

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Neurosurgical Management in Neurofibromatosis

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Neurofibromatosis (NF) is the most common inherited disease of the nervous system, and represents an autosomal dominant disorder predisposing to the formation of multiple tumours in the central and peripheral nervous system. Two diseases can be clinically and genetically distinguished: Neurofibromatosis 1 (NF1) with a gene defect on chromosome 17 and Neurofibromtosis 2 (NF2) with a gene defect on chromosome 22. In Neurosurgery, NF poses an enormous task in decision making and management. Patients with NF1 may present with optic gliomas, spinal neurofibromas, intramedullary gliomas, peripheral nerve tumours among others. Patients with NF2 frequently develop bilateral vestibular schwannomas and other intracranial lesions like meningiomas and schwannomas, multiple spinal tumours, and peripheral nerve tumours. Accurate investigations, careful individual decision making and neurosurgical treatment in experienced centres will contribute to improve outcome. Author's particular experience in dealing with these diseases is presented along with special case examples.

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The Fronto-Lateral Approach as a New Surgical Approach in Neurosurgery: Advantages and Experience at King Hussein Medical Center

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Objectives: To describe that through small sub-frontal craniotomy complete excision of large midline tumors can be achieved and to demonstrate our experience in this field.
Methods: A descriptive study of 150 patients with sella, suprasellar, and olfactory groove tumors who presented to the neurosurgical clinic at King Hussein

Medical Center, were included in the study. The tumors were excised through a small 4x4cm sub-frontal craniotomy. The perioperative complications and the follow up after surgery was analyzed and reported.
Results: All tumors were completely excised without serious complications. The cosmetic results were good.
Conclusion: Through a fronto-lateral approach with sub-frontal craniotomy midline brain tumors can be completely excised, it can be considered as safe, effective with no major complications.

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Variety of Complex Congenital Craniofacial Anomalies Presenting to the Craniofacial Unit at King Hussein Medical Center: A 10 years Experience

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Objectives: Congenital Craniofacial anomalies are a diverse group of deformities in the growth of the head and facial bones. A child with a cleft or craniofacial condition requires coordinated care by a number of medical professionals who each bring specialized expertise in a practical setting. The wide array of various deformities makes it difficult for any one specialist to manage all the various conditions. The Craniofacial Unit at King Hussein Medical Center was established in 1984 and is located at The Royal Jordanian Rehabilitation Center. Our Multidisciplinary Team consists of; Plastic and Reconstructive Surgeons, Neurosurgeons, Orthodontists, Pediatricians, Ophthalmologists, Interventional Radiologists, Anesthesiologists and Speech Therapists. The unit is dedicated to the treatment of craniofacial conditions and is the only comprehensive unit in Jordan. Care starts from birth and continues for the patient's lifetime.
Methods: Over the last 10 years 221 patients with complex congenital craniofacial anomalies excluding simple cleft lip and palate and vascular malformations patients presented to our unit. The largest group were Craniosynostosis: 86 patients (59 non-syndromic, 27 syndromic) followed by Cranial clefts: 56 patients, Facial clefts: 44 patients, Orbital anomalies 24 patients (Blepharomphimosis 13, Microphthalmia 11) and the rest were a wide group of miscellaneous rare conditions.
Results: We present our experience with the wide variety of conditions with emphasis on management of the more complex disorders, complications of surgery and difficulties encountered. We emphasize how international cooperation has allowed us to expand the scope of work at the unit.
Conclusion: These complex anomalies are rare and there is a long learning curve. Since 2001 the unit has diversified with a yearly 7 day workshop at KHMC in cooperation with a craniofacial unit from the USA to deal with the more complex deformities.

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Results of Craniosynostosis Surgery at King Hussein Medical Center Using Cranioplasty Techniques

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Objectives: Craniosynostosis is a term used to describe premature fusion of one or more cranial sutures. We present our experience with surgical management of these conditions in combination with our neurosurgical colleagues using cranioplasty techniques.
Methods: Over the last 10 years, a total of 86 patients with a variety craniosynostotic disorders were surgically treated at King Hussein Medical Center. There were 48 females and 38 males. The median age at presentation was 18 months (range 2 months - 16 years). There were 59 non-syndromic patients and 27 syndromic cases. All patients underwent a form of cranioplasty technique depending on the deformity.
Results: The commonest deformity was

synostotic frontal plagiocephaly in 30 patients, followed by trigonocephaly in 17 patients. There was no mortality or postoperative visual acuity problems in any of the patients. Two patients with trigonocephaly had intraoperative significant bleeding during the lifting of the bone flap. One patient developed postoperative frontal lobe behavior which recovered after three weeks. One patient developed one attack of early post-operative convulsion and another patient developed a convulsion attack 3 months postoperative. Both were maintained on anticonvulsants for 1 year with no later fits. Five patients required aspiration of scalp seromas. One patient developed a scalp hematoma that was surgically evacuated.
Conclusion: Craniosynostosis surgery is relatively safe with few complications and good results. It requires a multidisciplinary approach. The learning curve is long due to the small number of cases.

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Surgical Treatment of Suprasellar Lesions by the Supraorbital Approach

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The area surrounding the sella can be affected by different types of lesions, including vascular and tumoral ones. Since the introduction of microsurgery, several approaches have been described to treat lesions of the suprasellar area, such as the pterional, the subfrontal unilateral or bifrontal approaches, the supraorbital fronto-lateral approach, and more extensive skull base approaches like the fronto-orbito-zygomatic procedure.
The supraorbital approach (SOA) is a straight-forward and not time consuming procedure, which enables an excellent view of the suprasellar and perisellar regions, and produce good cosmetic results. Based on different cases of aneurysms of anterior and posterior circulations, as well as cases of suprasellar tumors, the author will present his personal experience with use of SOA to treat different vascular and tumoral lesions of the suprasellar and perisellar regions.

Hall H Session 4
General Surgery

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Rubber Band Ligation of Symptomatic Internal Hemorrhoids

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Objectives: To study the results of the treatment of symptomatic second degree hemorrhoids using rubber band ligation (RBL).
Methods: A retrospective study conducted on 124 patients who presented to the surgical clinic complaining of symptomatic bleeding internal hemorrhoids during the period from January 2009 through December 2009, the data was retrieved from archived files. RBL was performed using the suction ligator in the outpatient clinic on an outpatient basis. The patients were evaluated in the out-patient clinic at 2 week, 1 month and 6 months after the procedure.
Results: After RBL, 116 patients (93.5%) were cured completely where they became asymptomatic. Recurrent bleeding was detected in 8 patients (6.5%). A total of 28 patients (22.6%) had minor complications from RBL which required no hospitalization these included: pain or discomfort (16.2%), mild rectal bleeding (3.2%) and vasovagal symptoms (3.2%). None of the patients had any disruption of their anorectal function.
Conclusion: RBL is a simple, safe and effective method for treating symptomatic second degree hemorrhoids as an outpatient procedure with significant improvement in quality of life. RBL doesn't alter ano-rectal function.

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A Five-Year Burn Unit Experience at King Hussein Medical Center: 2005 to 2009

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Objectives: To describe the demographic

pattern of burn patients referred to the burn unit in the Royal Rehabilitation Center and to compare the results with other studies.
Methods: Patients admitted to the burn unit in the Royal Rehabilitation Center, King Hussein Medical Center, Royal Medical Services in Jordan between January 2005 and December 2009 were reviewed and their demographic characteristics were analyzed.
Results: A four hundred and ten burn patients were reviewed. Ten patients with toxic epidermal bullosa were excluded from our study. The overall male-to-female ratio was 1.53:1.The age of highest-risk group in burn injuries was 0 -14 years (39%), with the greatest number of injuries occurring in children between 1 - 2 years of age. Seasonal variations showed an influence on the number of admissions to the burn unit were it showed a dramatic increase in the winter season peaking in January and February. Scalding was the major cause of burn in pediatric age group. Direct flame burn (DFB) was the most frequent cause of burns in adults and the second-leading cause of burn in children. 57 out of the 400 patients died, with an overall mortality rate of 14.25%. Mortality rate in children was 2.25%, 7.0% in adult males and 5.0% in adult females. The average percentage of burns for all patients was 27.17%, this percentage reached 59.9% in the deceased patients.
Conclusion: Children are at high risk from burn injuries, the main cause of which is scalding. In the adult age group, the main cause of burn injuries was flame burns. The mortality correlates highly with the percentage of burn. Most burns are preventable and, hence, educational programs should be conducted to inform the public of the causes of burns and their prevention

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Postoperative Hydrocortisol Wound Injecion and Seroma Incidence in Breast Surgery: Is There a Correlation?

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Objectives: In the common management of surgical drains post breast surgery is to remove the drain after the 24-hour-output is less than 30 ml or on the 5th postoperative day irrespective of volume drained. This resulted in an average seroma incidence of 30–45% and an average bed stay of two weeks. The aim of this descriptive study is to find out the efficacy of hydrocortisone injection in the wound postoperatively with early removal of the drain on the 3rd postoperative day, irrespective of volume drained, will have a detrimental effect on the outcome on seroma formation.
Methods: All patients who underwent breast surgery between August 2009 and January 2010 were included in the study. The following data were collected: age of patient, type of operation, , drain volumes in the 1st, 2nd and 3rd postoperative day, seroma incidence, number of postoperative days of seroma formation, volumes of seroma aspirated, frequency of hydrocortisone injection , lymph nodes status in post surgery histopathology reports, and the neoadjuvant therapy if used. The data was collected and analyzed. On the 4th post operative day all drains were removed and 2 ampoules of hydrocortisone diluted in distilled water each ampoule contains 100 mg hydrocortisone were injected in the wounds. A pressure garment was applied and the patients were sent home. The patients were seen one week post discharge in the clinic and reassessed for seroma collection. if >30cc of seroma was aspirated reinjection of hydrocortisone was performed and the patient reassessed in one week and so forth
Results: The total number of patients was 87 patients. All patients were discharged on the 4th postoperative day. The 87.3% of these patients had 1or 2 aspirations, while only 2 patients needed 5 aspirations. The peak time of seroma formation was between 6th to 8th postoperative days. The average range of drained-seroma volume was 140–160 ml on the first visit.74.7 % (65patients) needed only one time injection, 12.6% (11patients) needed a 2nd injection. 8.04 %(7patients) needed 3 or 4 reinjection. 2.66% of the patients lost follow up. 2.03% developed local abscess formation secondary to the injection. 55% of the patients who needed a 2nd injection were n2 or n3 in histopathology report. Those who needed more injections (5

patients) were definite n3 or had received neoadjuvant chemotherapy. Mean seroma days were11days.
Conclusion: The seroma incidence in our study was 42·5% that did differ greatly compared with previous practice (30–45%). A considerable decrease in mean seroma days from 3 weeks to 11 days was noted. The hospitalization was shortened greatly and most importantly the patients were hugely satisfied with the new practice. Earlier initiation of chemoradiotherapy protocol following these results in comparison to previous practice has been noted. We conclude that early removal of drain with hydrocortisone injection is an effective and safe practice.

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Gallbladder Stones in Northern Jordanian Adult Females

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Objectives: To study the incidence of gallstones among Jordanian adult female population in northern part of Jordan, and its correlation with parity, body weight, and diabetes mellitus at this area.
Methods: This is a prospective study performed at Prince Rashed military hospital in the north of Jordan between 1st August 2007 and 1st March 2008 to do detect gall bladder stones by ultrasound. Examination included five hundred and thirty women aged between twenty five and seventy five years. Patients' data included history parity, diabetes mellitus and body weight measurement.
Results: There were530 women include in the study. A total of 53(10%) had gall bladder stones. There were 318 women aged less than 30; of whom 20(6%) was found to have gall bladder stones. 33(15%) of the older other women were observed to have gall bladder stones. Gall bladder stones were detected more in multi-para women (26.3%) of those who were more than para four while they were observed in only 5.7% of those with para four or less (p=0.004). Gall bladder stones were detected more in heavyweight women; it is as high as (35.8% among women with body weight over sixty kilograms while it is only observed in (3.6%) of women with weight below sixty kilograms (p<0.001)
Conclusion: This study shows that gallstones represent a problem in this area and it deserves attention. It further shows its strong correlation with parity, body weight and presence of diabetes mellitus.

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Life Style and Varicose Veins in Gaza Strip

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Objectives: The aim of this study is to correlate the prevalence of varicose veins with the life style of patients in Gaza Strip
Methods: Two hundred patients who presented to the Jordanian mobile military hospital in Gaza strip with varicose veins in the year 2009 were studied regarding their age, sex, family history, parity and job.
Results: The study showed that female had more than three folds prevalence of varicose veins compared to male. 55% of patients with varicose veins were over 40 years. Long standing hours during work was a major risk factor for varicose veins where it had a threefold increase risk in males and two folds increased risk in females. The prevalence of varicose veins was higher by 7% in positive family history patient compared to patients with negative family history. There was a steady increase in the prevalence of varicose veins with increased parity. Nilparous females formed of 16% of patients while patients with more than six births formed 25% of patients.
Conclusion: In conclusion age, gender and family history is the most important risk factor of varicose veins in the total population. Standing demanding jobs and increased parity had a great influence on the prevalence of varicose veins.

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Dexamethasone for the Prevention of Acute and Delayed Nausea and Vomiting in Post Laparoscopic Cholecystectomy Patients

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Objectives: The objective of this study is to determine the efficacy of a single dose (16 mg) dexamethasone in prevention of acute and delayed post laparoscopic cholecystectomy-induced nausea and vomiting (12-24 h after surgery).
Methods: This comparative study has been conducted past period of 6 months at Princess Haya Hospital, Aqaba, Jordan. 60 patients received 16 mg of decadron by injection two hours prior to surgery, while the comparative group of 60 patients did not. All patients underwent regular assessments every 2 h post operatively for nausea and vomiting and the need for antiemetic drugs over the first 24 hours after laparoscopic cholecystectomy.
Results: In the study group nausea and vomiting were absent in 90% of patients (54 patients), 5% had vomiting alone, and 9 patients (15%) had nausea alone in the first post operative period. While in the control group, 65% of patients (39 patients) had nausea and vomiting post operatively, 78 % (47 patients) had vomiting alone, and 84% (50 patients) had nausea alone in the first post operative period.
Conclusion: This study shows good and encouraging results in terms of prevention and prophylaxis against emesis in post operative cholecystectomy following single dose Decadron therapy preoperatively. Decadron injection is simple to administer and provide safe and very effective antiemetic protection over the whole 24-hour period, and it is very effective in controlling early and late onset post operative-induced nausea and vomiting.

Hall I Session 1
Pulmonology

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Current Therapy for Asthma and COPD

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Increasing recognition of similarities and overlap between asthma and COPD has led to increasing adoption of asthma therapy in COPD. Inhaled conventional, short-acting beta2 agonists, because of their rapid onset of action, are the relief bronchodilators of choice in COPD as in asthma. Inhaled corticosteroids (ICS) are firmly enshrined in national and international Guidelines in management of all grades of persistent asthma and are now recommended in COPD patients with FEV_1 <50% predicted and recurrent exacerbations. They are often more widely used, though their place in milder COPD is still debated. ICS reduce symptoms, bronchial responsiveness, bronchial inflammation and exacerbations in both asthma and COPD. ICS have greater effects in asthma and in COPD patients with eosinophilic inflammation. Oral corticosteroids may be life-saving in severe exacerbations of both asthma COPD and form part of self-management plans and primary care treatment of both conditions.
The inhaled long-acting $beta_2$ agonists (LABAs); salmeterol (SM) and formoterol, (FM) are recommended at step 3 of the BTS Asthma Guidelines ie for patients not adequately controlled on low-medium daily doses of ICS. They are also now advised for COPD patients with persistent symptoms on short-acting bronchodilators. Formoterol, unlike salmeterol, is a rapid onset, long-acting beta 2 agonist so it can be used as a reliever in both conditions.
Combination ICS/LABA Seretide (fluticasone/salmeterol) and Symbicort (budesonide/formoterol) and Fostair (beclometasone/formoterol)areincreasingly prescribed over mono-component inhalers. Combinations are more convenient and cost-saving, may increase overall adherence, reduce exacerbations in both conditions and prevent differential non-compliance. Concern about potential

risks of LABAs, highlighted by the SMART study has led to suggestions that all LABAs should be prescribed as combination inhalers in asthma. Paradoxically, recent concern about excess pneumonia (and possibly upper respiratory infections) in COPD patients taking ICS may lead to the recommendation that LABA should be used alone, without ICS, in many patients with COPD. The rapid onset and dose-response of FM and the combination with budesonide has led to the use of Symbicort as maintenance and reliever therapy with studies in asthma showing reduced exacerbations and lower drug doses compared with fixed combination therapy.

Other drugs such as theophylline, and newer, more specific, phosphodiesterase inhibitors eg roflumilast are beneficial in asthma but more so in COPD, while cromones, leukotriene receptor modulators such as montelukast and the anti-IgE antibody omalizumab have established benefits only in asthma. Inhaled anticholinergic agents have more effect in COPD than in asthma and the long-acting agent tiotropium has major beneficial effects in COPD improving hyperinflation, quality of life and reducing exacerbations. There may be a role for tiotropium before combination therapy in mild COPD. Recent studies have validated the use of 'triple therapy' (ICS/LABA combination and tiotropium) in moderate to severe COPD. The recent UPLIFT study has offered reassurance about cardiovascular and stroke safety over 4 years. Non-pharmacological therapy such as pulmonary rehabilitation has been much more fully developed in COPD.

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Eosinophilic Lung Disease

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Pulmonary eosinophilia (PE) has traditionally been defined as respiratory symptoms and signs associated with eosinophilia in lung tissue or in BAL. However more commonly it is taken to include an abnormal infiltrate on chest Xray together with blood eosinophilia.

A recent classification of PE somewhat arbitrarily divides causes into known and unknown. Known causes include parasites, drugs, allergic bronchopulmonary aspergillosis (ABPA), bronchocentric granulomatosis and Churg-Strauss syndrome. Unknown causes include simple pulmonary eosinophilia (Loefflers), acute eosinophilic pneumonia, chronic eosinophilic pneumonia and idiopathic hypereosinophilic syndrome. We distinguish other conditions which may be associated with blood eosinophilia including asthma, some infections, various tumours, interstitial lung disease and collagen vascular disorders and also eosinophilic bronchitis (without blood eosinophilia).

Parasites show marked geographical variation but typically show a very high IgE and positive serology. ABPA varies in prevalence in different parts of the world accounting for 3-14% of severe asthma. This is characterized by CXray shadows, high total IgE and specific IgE tests eg prick skin tests or RASTs. Bronchocentric granulomatosis presents as a mass lesion which is associated with eosinophilia in one third of cases (giving a better prognosis).

Simple PE usually resolves spontaneously in a month. Acute eosinophilic pneumonia presents with a short history, may often be associated with smoking or another inhaled insult, and is characterized by hypoxaemia, a good response to steroid therapy and no relapse. Chronic eosinophilic pneumonia is insidious presenting over months, in middle age, (women more than men) and is associated with asthma in about 50% cases though the cause is unknown. It is usually steroid-responsive but about 50% of cases relapse.

Hypereosinophilic syndromes (HES) are a heterogeneous group of conditions characterized by chronic hypereosinophilia and tissue damage with a variable prognosis. Recently rare, genetic, molecularly-defined tumours have been described associated with the FIP1L1-PDGFRA fusion gene (also found in 10-20% idiopathic HES) and other abnormalities; PDGFRa fusions, PGDFRb, and FGFR1 (fibroblast growth factor receptor). Lymphocytic variants of HES are characterized by non-malignant expansion of aberrant T cell populations which are investigated by immunophenotyping or assay of T cell receptor clonality.

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Acute Radiation Pneumonitis after Radiation Therapy for Non-Small Cell Lung Cancer

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Objectives: to determine the effect of conformational radiation therapy in terms of lung toxicity.

Methods: This is a retrospective study in which thirty three patients with the diagnosis of non small cell lung cancer between August 2008 and September 2009, for whom complete retrospective review of toxicity was available, from three medical centers was analyzed.

Results: After modern conformal radiotherapy, 5% of severe complications require treatment and 30% of moderate acute radiation pneumonitis does not require treatment

Conclusion: Acute radiation pneumonitis evaluation should not be scheduled too early since many acute radiation pneumonitis occur after 8 weeks. Severe acute radiation pneumonitis frequently occurs early after RT and should be strictly watched out.

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Lung Cancer Diagnosis by Bronchial Wash (BW) and Brush Cytology at King Hussein Medical Center (KHMC), Analysis of 6 Year Results

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Objectives: To asses the diagnostic yield for lung cancer of two fiberoptic bronchoscopy procedures: brushing and bronchial wash cytology.

Methods: The results of Bronchial Wash and brushing cytology which were performed by flexible bronchoscopy at King Hussein Medical Center between January 2004 and December 2009 were retrospectively reviewed.

Results: A total of two thousand and eighty seven patients (27.9% females) underwent bronchial wash analysis for various indications over 6 year period. Age ranged (mean) 14-98 (49) years. Lung cancer was diagnosed in two hundred and fifty nine (9%) patients during the study period. The majority of lung cancer diagnosed was of non small cell type, small cell type was confirmed in only 11.2% of lung cancer cases. One hundred and fifteen (4%) patients showed highly suspicious BW cytology. Out of two thousand and eighty seven patients studied, seven hundred and ten patients (24.9%) had relatively central tumor sites and they underwent bronchial brushing cytological assessment as well. Two hundred and eleven (29.7%) bronchial brushing samples showed neoplastic cytology, seventy five (10.6%) had highly suspicious cytological results for lung carcinoma. In forty eight cases of the lung cancer cases the diagnosis was confirmed by bronchial wash cytology without performing Brushing.

Conclusion: Our experience substantiates previous reports of the value of bronchial wash & Brushings in the diagnosis of lung cancer. Bronchial brushings had a higher diagnostic yield in comparison with bronchial wash since it was performed mostly on bronchoscopically visible tumors. non small cell type was main lung cancer diagnosed and in the majority of cases no further specifications could be determined on cell type.

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Arterial Oxygen Saturation at High Altitude, A study on Unacclimatized Jordanian Soldiers Travelled to High Mountain

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Objectives: Travelling to high altitude is

a condition needs medical attention for possibility of hypoxia and it's consequences. In this study we decided to determine if arterial oxygen saturation decrease with high altitude in unacclimatized Jordanian soldiers travels to high mountain and to ascertain whether hypoxia if occurred correlate with the development of acute mountain sickness.

Methods: This study done at Shank base/ Afghanistan at a height of 1996 meters. Our sample was one hundred and sixty nine Jordanian soldiers selected from Jordan task force at shank. We performed a single pulse oximetric measurement at rest for each individual within 72 hours of arrival by plane to shank. For any subject with low arterial oxygen saturation (less than 94%) we evaluate them for symptoms of acute mountain sickness using Lake-Louise score.

Results: Pulse oximetry range for our sample was from 100% to 92%. The mean was 96.2%. The findings were within normal distribution of pulse oximetry for healthy individuals. We found 4 individuals with oxygen saturation below 94%, Symptoms of acute mountain sickness were absent in this group.

Conclusion: Altitude illness and hypoxia rarely occurred below a height of 1996 meters from sea level.

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Pulmonary Vasculitis

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The primary systemic vasculitides are a group of rare, serious multisystem diseases involving necrotizing inflammation of blood vessels of various sizes, and the presence of circulating anti-neutrophil cytoplasmic antibody (ANCA). The 3 commonest (ANCA-associated) disorders are Churg-Strauss syndrome (CSS), Wegener's granulomatosis (WG) and microscopic polyangiitis (MPA). The relative prevalence of each seems to vary from country to country but all frequently affect the lung.

Nasal and sinus disease are common particularly in WG and CSS. Large airway lesions can be troublesome in WG and we have proposed local endobronchial therapy as opposed to surgical reconstruction or intensive systemic immunosuppression. Various lung parenchymal manifestations occur: airspace shadowing, consolidation, nodules, cavitating lesions or large 'tumours'. Asthma is common in CSS. Bronchiectasis may occur as a late finding. Pulmonary haemorrhage, sometimes causing respiratory failure, occurs, most commonly in MPA. Late stage pulmonary fibrosis is increasingly recognised. Early diagnosis requires a high index of suspicion and use of the ANCA test and is the key to a successful outcome which requires immunosuppressive therapy. There have been major recent advances in treatment resulting from large randomised controlled clinical trials. Management is compounded by occurrence of infection secondary to immunosuppression which also commonly affects the lung.

Hall I Session 2
Neurosurgery

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Surgical Treatment of Tumours in Eloquent Areas of the Central Nervous System

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In recent years, advances in intraoperative monitoring (IOM) and neuroimaging have greatly increased the pool of information about the function of the nervous system, thus helping to better delineate different eloquent areas of the brain. Many of these regions were considered in the past a "taboo" for neurosurgery, due to severe neurological deficits surgery might result in. The use of intraoperative neuronavigation which includes fMRI and fiber tracking, and IOM with cortical and subcortical stimulations, along surgery in awaken condition have tremendously improved surgical outcome even in difficult cases. Recently, the use of intraoperative 5-ALA fluorescence technology improved tremendously the rate of radicality of malignant brain tumors. This presentation will show how the author is using these technologies to treat difficult tumours located in different eloquent areas of the brain, brainstem and spinal cord.

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Efficacy and Safety of Balloon Kyphoplasty for Vertebral Compression Fractures at King Hussein Medical Center

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Objectives: Balloon kyphoplasty is a minimally invasive procedure for the treatment of painful vertebral fractures it is intended to reduce pain and improve quality of life. We assessed the efficacy and safety of the procedure.

Methods: Adults with acute vertebral fractures were eligible for enrolment in this study. The primary outcome was the differences from baseline to 1 month in the short-form (SF)-36 physical component summaries (PCS) score (scale 0-100). Quality of life and other efficacy measurements and safety were assessed up to 12 months.

Results: 30 patients were treated with kyphoplasty and completed follow-up at 1 month. By use of repeated measures mean SF-36 PCS score improved by 7.6 points; from 29.0 at baseline to 37.2 at 1 month.

Conclusion: Our findings suggest that balloon kyphoplasty is an effective and safe procedure for patients with acute vertebral fractures and will help to inform decisions regarding its use as an early treatment option.

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Lumbar Spinal Stenosis: Minimally Invasive Bilateral Microsurgical Decompression Effectiveness At King Hussein Medical Center

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Objectives: We describe a retrospective study that investigates the effectiveness of microsurgical bilateral decompression using unilateral laminotomy for lumbar spinal stenosis.

Methods: A total of 105 consecutive patients underwent decompression for lumbar spinal stenosis in the years 2007 and 2008. The outcome was monitored by an independent observer at 1 week, 3 months, and 1 year after surgery. The following parameters were evaluated: pain (visual analog scale and analgesic consumption), functional improvement (Neurogenic Claudication Outcome Score), and walking performance, defined as walking distance speed (treadmill).

Results: One week after surgery, pain decreased in 83.9% of patients, and a comparison of the pre- and postoperative use of analgesics showed that 37% of patients discontinued nonopioid analgesic use and 69% stopped opioid use. Nonsteroidal anti- inflammatory drug consumption increased 11%. One year after surgery, pain remained decreased in 85% of patients, Neurogenic Claudication Outcome Score increased in 92% of patients, and walking performance improved in 93% of patients. Surprisingly, patients who underwent multilevel decompression benefited more from surgery than those who underwent single-level decompression.

Conclusion: Microsurgical bilateral decompression using unilateral laminotomy is an effective surgical option for lumbar spinal stenosis.

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Spinal Tumors Microsurgical Resection: Experience and Outcome at King Hussein Medical Centers

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Objectives: To assess microsurgical technique and to prove that it improved the surgical outcome of spinal intradural tumors at King Hussein Medical Center.

Methods: Seventy one cases of spinal intradural tumors including, meningioma, neurofibrome, hemangioblastoma, epidermoid and ependymoma were resected over the last 6 years (2003 – 2009) at King Hussein Medical Center using microsurgical fine dissection. All patients who presented to follow up were followed every 6 months for the first year , then annually for 2 years by MRI ,

after 3 years the possibility of recurrence is minimal .
Results: Our results and follow up will be discussed and presented stressing the fact that microsurgical excision is the best treatment for these lesions especially intramedullary tumors when we could resect ependymomas completely with minimal deficit.
Conclusion: Microsurgical excision is excellent method of treatment for the spinal intradural tumors.

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Abstract Epilepsy Surgery

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One percent of the global population, children and adults, are affected by epilepsy. In about one third of patients, seizures cannot be controlled by antiepileptic medication. A significant proportion of these patients, especially those with focal epilepsy, may benefit from epilepsy surgery. Given the patients' reduced quality of life and the high social and economical burden of uncontrolled seizures, early consideration of the possibility of epilepsy surgery is recommended.
Two types of surgical procedures can be distinguished: curative and palliative procedures. Curative procedures, which in most cases entail the surgical removal of cortical tissue, aim at abolishing the seizures by removing or disconnecting the area which gives rise to the seizures, without causing an unacceptable functional deficit.
In order to determine whether a patient is a candidate for epilepsy surgery, and which surgical procedure will produce the best result, a careful presurgical evaluation is mandatory. This includes high-resolution MRI with specific epilepsy sequences to determine the presence, nature and extent of a possible epileptogenic lesion, surface video-EEG monitoring with recording of seizures to determine the seizure onset zone, a thorough neuropsychological evaluation, eventually additional functional imaging procedures such as PET, SPECT, f-MRI. If the information obtained through non-invasive investigations is not sufficient to make a final decision, or the presumed seizure onset zone is close to eloquent areas such as language or motor function, invasive video-EEG monitoring with implanted subdural or depth electrodes may be necessary to delineate the area to be resected. Surgical procedures include focal, lobar and multilobar resections, as well as functional hemispherectomy in patients with severe unihemispheric epilepsy. The most frequent pathologies amenable to epilepsy surgery are benign tumours, hippocampal sclerosis and focal cortical dysplasia. Overall, in carefully selected patients, the chance of post-operative seizure freedom is about 70-80%, with a low risk of morbidity using modern surgical techniques.
Palliative procedures aim at reducing the frequency and/or severity of seizures in patients who are no candidates for curative surgery. This mainly refers to patients with multi-focal or generalized epilepsies. Procedures include the partial removal of the epileptogenic zone in order to spare eloquent cortex, corpus callosotomy, multiple subpial transsections and different stimulation techniques, most commonly vagus nerve stimulation. Other stimulation techniques currently under investigation which show promise for the future are hippocampal stimulation, deep brain stimulation of different targets (thalamus, STN) and direct cortical stimulation of epileptic foci using closed-loop systems.

Hall I Session 3
Thoracic Surgery

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Stage Adapted Treatment of Non-Small Cell Lung Cancer

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Lung Cancer is still the leading cause of cancer related mortality in Germany and in most countries. It is estimated that in the near future more patients died of lung cancer than prostate, breast, and colorectal cancer combined. In contrast to nearly all other cancer related diseases, lung cancer shows an improvement of overall 5-year survival from 10% to 14% only. The causes are on the one hand the low number of early lung cancer, which will be detected mostly accidentally. With thoracoscopic lobectomy a new minimal invasive treatment toll is at our disposal. Anatomic segmentectomy is another possibility in stage I NSCLC. Together with adjuvant chemo- or chemoradiotherapy good long time results could be achieved. In order to collect more patients with early lung cancer the need of a screening program is still in discussion. On the other hand about 40% of patients which are presented suffering from advanced stage NSCLC. In most countries stage III lung cancer will be treated palliative only. We have operated on about 300 patients with stage III lung cancer after treatment with chemoradiotherapy. 5-year survival of complete resected patients is between 40% and 50% according to postoperative downstaging and stages. Acceptable survival with about 30% could also achieved in persistent N2 disease. In highly experienced centers, neoadjuvant chemoradiotherapy followed by complete resection is feasible and may offer a chance for long-term benefit and cure in carefully selected patients with advanced, stage III NSCLC.

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Typical Bronchial Carcinoid Tumours: are they malignant?

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Objectives: To asses the feasibility of conservative resection of bronchial carcinoids, to validate this by a study of recurrence and survival and to assess those factors which might affect such a policy.
Methods: Over a period of 25 years (1979-2004). 130 patients were treated for bronchial carcinoid tumour. Patients underwent complete assessment for feasibility of surgical treatment preoperatively. Conservative resection with preservation of functional pulmonary parenchyma was performed when possible. These patients were followed up for recurrence and complications.
Results: The mean age of patients was 52 years. Symptoms were present in 65% of patients 62% of the tumors were central in position. Conservative surgical resection was performed in 122 patients. Five did not undergo surgery because of multiple foci, severe comorbid cardiac pathology or patient's refusal. Three patients underwent pneumonectomy for severe distal lung damage, wrong initial pathologic interpretation as a lung cancer and for recurrence. Lymph node involvement was present in 21 patients (N1 – 17 patients, N2 – 4 patients). 100 patients had typical features of carcinoid and 22 patients had atypical features. During a 15-year follow-up period 97% of patients were free of recurrence. There were three deaths (refusal of surgery, recurrence, and distant metastasis).
Conclusion: Bronchial carcinoid tumor is a low-grade tumour. Conservative resection is feasible and safe, and results are not influenced by the lymph node involvement, and therefore should not extend the surgical procedure as for nonsmall cell lung cancer. Typical carcinoid tumors should be considered benign rather than malignant tumor.

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Hyperthermic Intrathoracic Chemotherapy (HITOC)

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The treatment of pleural mesothelioma does not show satisfactory results up to now. With curative intended treatment approach, 2-year survival rates of 40-60% could be achieved. As alternative to extrapulmonary pleuropneumonectomy we developed a treatment approach with complete pleurectomy and decortication and intraoperative hyperthermic (42° C) chemotherapy (HITOC) and postoperative local chemotherapy followed by adjuvant chemoradiotherapy. After histological confirmation and staging including PET-Scan we performed open decortications and pleurectomy. Afterwards intraoperative

chemotherapy with (Cisplatin, Mitomycin, Doxorubicin) was done. Starting on day 2 up to day 6 adjuvant local chemotherapy was administered through the chest tubes. After discharge radiotherapy was administered to the incisions and 4 cycles of chemotherapy containing cisplatin and pemetrexed. Up to now 16 patients were treated. 2 year overall survival is 60%. Perioperative mortality is 6% (n=1) and morbidity 41% (n=7). Intracavitary hyperthermic chemotherapy could be administered with acceptable morbidity and mortality and promising survival rates.

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Minimally Invasive Surgery for the Diagnosis and Management of Mediastinal Diseases: Review of 176 Cases

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Objectives: To review the value of minimally invasive surgery as a diagnostic and therapeutic tool in the management of mediastinal diseases and pathologies.
Methods: This descriptive study was conducted at King Hussein Medical Center in the period between January 2007 and December 2009. One hundred seventy six patients were included in this study. Patients who underwent mediastinoscopy were excluded. Data was retrieved from the thoracic surgery division computerized data base. Types and efficacy of the procedures, postoperative morbidity and mortality, and postoperative hospital stay were reviewed.
Results: Males constituted 61.2% (n= 167). Age ranged from 16-73 years (mean= 36.9 ±18.6). Thoracoscopic diagnostic procedures were done in 44 patients (25%), while the therapeutic procedures constituted 75% of the surgeries (n=132). Thoracoscopic mediastinal mass biopsy was the most common diagnostic procedure performed in 19 patients (10.8%). Thoracoscopic sympathectomy was the most common therapeutic procedure done in 93 patients (52.8%), followed by thoracoscopic thymectomy which was performed in 10 patients (5.7%). Atelectasis and mild hemothorax was the most common postoperative complications with no reported mortality. Postoperative hospital stay ranged from 1 to 5 days (mean =2.1±1.1days) for the diagnostic procedures, while it was 3.6 ± 2.8 days (range 1-12 days) for the therapeutic procedures.
Conclusion: Thoracoscopic surgery is an efficient and safe diagnostic and therapeutic tool in the management of mediastinal diseases and pathologies.

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Extended Lung Resection using Extra-Corporal Circulation

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Advanced T4 thoracic cancer invading central structures like intrapericardial vessels, atrium, Aorta, V. Cava, or trachea shall often be deemed as technically irresectible. This is, from the technical side of view, not correct in most cases. Whether the resection makes sense in oncologic point of view should be discussed in the interdisciplinary tumor board. During the last five years we have performed 12 extended lung resections using heart-lung machine. Underlying disease was lung cancer in 10, metastases in one and thymic cancer in one case. Periopertive death occurred in 2 patients (16%) due to massive hemorrhage in one case, myocardial infarction in one case. Mean survival is 16 months. During the same time another 24 resections were performed with HLM stand by. Advanced resections using extracorporal circulation are justified as well in curative as in palliative surgery of cancer patients. The aim is prolonged survival or improvement of quality of life. In specialized centers those resections could be performed with acceptable morbidity and mortality.

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Thoracoscopic Versus Open Decortication in the Management of Stage Two and Three Parapneumonic Empyema

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Objectives: To compare the outcome of thoracoscopic versus open decortication in the management of stage two and three parapneumonic empyema.
Methods: This retrospective study was conducted at the thoracic surgery division of the Royal Medical Services in Amman-Jordan through the period between January 2007 and October 2009. Forty one patients were included in this study. Data were retrieved from the thoracic surgery division computerized data base. Patients were divided into two groups: group A, which included patients who underwent thoracoscopic decortication; and group B, which included patients who underwent open decortication. Efficiency of the procedure, operative time, postoperative complications, peri-operative mortality, length of hospital stay and time to return to work were compared between the two groups.
Results: There were 32 males (78.0%) and 9 females (22.0%). Nineteen patients (45.3%) underwent thoracoscopic decortication (group A), while 22 patients (53.7%) underwent open surgery (group B). There was no statistical significant difference between both groups regarding postoperative hospital stay and rate of air leak. Postoperative blood loss, postoperative pain, post operative morbidity and mortality were less in group A ($P < 0.0001$). Duration of the procedure was less in group B ($P < 0.0001$).
Conclusion: Thoracoscopic decortication is a safe and effective measure to treat stage two and three parapneumonic empyema. We think it should replace the traditional open technique when feasible.

Hall J Session 1
Orthopedic Surgery

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Percutaneous Trigger Finger Release - A Clinic Experience

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Objectives: To study the short-term success and complications of percutaneous trigger finger release.
Methods: In our study five thumbs, 28 middle fingers, eight ring fingers and two index fingers in 36 patients aged from 27 to 81 years (27 females, nine males) were treated. Under local anesthesia, the tip of an 18-gauge needle was used to divide the A1 pulley percutaneously. Assessment at weeks 2, 5 and 12 postoperative was recorded.
Results: There were two failed releases requiring conversion to open release. All except one patient had low pain scores of less than 6 after 2 weeks and had complete recovery by 6 weeks. There was no recurrence of triggering. Range of motion was preserved in all cases. There was no digital nerve or tendon injury. One patient developed bilateral hand hematoma. This complication was avoided by modifying the technique in consequent cases.
Conclusion: Percutaneous trigger finger release is a simple, safe and effective method for releasing trigger fingers with excellent functional results. Wound complications of open release are minimized.

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The Effect of Obesity in the Development of Carpal Tunnel Syndrome

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Objectives: To determine the effect of obesity in the development of carpal tunnel syndrome.

Methods: A cross-sectional study was conducted over a 2 months period. The cohort included 150 patients with hand symptoms related to carpal tunnel syndrome (C.T.S) visiting various outpatient clinics at Jordan level IV military hospital in Gaza. Inclusion criteria included patients with an established diagnosis of carpal tunnel syndrome (based on symptoms and nerve conduction studies) and obesity (defined as a Body mass index (B.M.I) of more than or equal to 30). Exclusion criteria included patients with co-morbid illnesses like diabetes, rheumatoid arthritis and other connective tissue diseases. Pregnant patients and smokers were also excluded from the study. Median mononeuropathy was established based on evidence of altered nerve conduction study involving the median nerve at the area of the carpal tunnel(0.5 millisecond ms prolongation of the median sensory-evoked peak latency compared to the ulnar latency).
Results: Of the 150 patients, 32(21.3%) fulfilled the criteria to be enrolled in the study. 3 patients were lost to follow-up. Of the 29 remaining patients, all were females. Their mean age was 42.7 years(ranging from 22-60 years). 12(41.3%) had bilateral involvement of both hands. of the 17(58.7%) that had unilateral symptoms 14(82.3%) showed no evidence of median mononeuropathy in the asymptomatic hand.
Conclusion: Although the literature supports significant association between the occurrence of carpal tunnel syndrome and obesity, our study failed to show that Obesity alone contributes significantly to the occurrence of carpal tunnel syndrome or median mononeuropathy.

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Shoulder Magnatic Resonance Imaging, analysis of findings at King Hussein Medical Center

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Objectives: Analysis of findings of abnormal shoulder Magnatic Resonance Imaging at King Hussein Medical Center.
Methods: All shoulder Magnatic Resonance Imaging studies performed at King Hussein Medical Center during the period June 2007 to April 2008 were retrospectively analyzed, focusing on gender, age and abnormal Magnatic Resonance Imaging findings.
Results: the total number of patients was 305 (217 males and 88 females), 50% of patients were of young age group (20-39 years), 96 patients (31.5%) were over 50 years, 30patients had normal Magnatic Resonance Imaging findings, supra spinatous tear was the most common finding; seen in 75 patients, acromio clavicular joint osteoarthritis was seen in 43 patients, most of them were over the age of 50 years.
Conclusion: Shoulder Magnatic Resonance Imaging is a useful test for diagnosis of different shoulder joint pathologies; in 24% of patients the test could be avoided.

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Obstetrical Brachial Plexus Palsy Management at the Royal Jordanian Rehabilitation Center

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Objectives: To evaluate the early results of patients with obstetrical brachial plexus palsy who underwent primary brachial plexus exploration and nerve graft and patients who underwent secondary soft tissue release and muscle transfer.
Methods: During the period between October 2008 and October 2009, 26 infants (below one year) underwent primary exploration of the brachial plexus and multiple nerve grafts while 30 patients (age 2-19 years) underwent Latismus Dorsi muscle transfer and soft tissue release. Follow-up ranged between 6-18 months regarding range of motion and power of upper limb. These patients were followed up by the physicians, physiotherapist, occupational therapist, social worker, and neurologist for the progress and improvement.
Results: Early result from primary exploration showed good results concerning power of upper limb muscle and range of motion in joint of upper limb. Early results

from muscle transfer and soft tissue release showed very good result in most children.
Conclusion: Primary exploration in obstetrical Brachial Plexus Palsy in almost all cases of total palsy and some cases of upper palsy showed good results. The secondary surgery (if done in thr proper time) showed excellent results within months.

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PHILOS Plate for Treating Complicated and Non-Union Fractures of Proximal Humerus

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Objectives: Proximal humerus fracture has been named "the unsolved fracture" which is characterized by difficult classification, difficult treatment and often poor functional outcome after treatment. Displaced, complicated and nonunion fractures of proximal Humerus generally result in long-term functional disability. Proximal Humeral Internal Locking System (PHILOS) plate designed specifically for proximal humerus fractures have expanded the indications of treatment permitting surgeons to address more complicated fractures. The purpose of this study was to assess the safety, efficacy and results of using PHILOS plate in treating complicated and non-union fractures of proximal Humerus.
Methods: We used the new Locking plate technology (PHILOS) which has been developed as a potential solution to the difficulties encountered using conventional plating to treat proximal Humerus fractures in osteoporotic bone, particularly with metaphyseal comminution, complicated cases and nonunion. A total of 23 patients who were referred to the hand and upper limb unit at King Hussein Medical Center with displaced three- or four-part proximal fractures, complicated after using conventional plates or after nonunion of the humerus were included in the study and were treated by open reduction and internal fixation using the proximal humeral internal locking system (PHILOS) plate. There were 9 women and 14 men with a mean age of 51 years (35 – 77 years). Data was collected prospectively and the outcome was assessed using the Constant score. The patients were followed-up for an average of 11 months (4-14 months) with early rehabilitation and functional assessment.
Results: In all patients the fracture united clinically and radiologically at a mean of 10 weeks (8 – 24 weeks). One patient had radial nerve palsy which recovered in 3 months. All patients recovered full functional hand use with follow up, there was no implant failure.
Conclusion: Locking plate system is superior over other means of fixation methods with high union rate in the treatment of proximal humeral fractures, particularly in osteoporotic fractures, because it allows early rehabilitation and does not result in implant failure. The Philos method appears to be safe and can be recommended for the treatment of proximal humeral fractures in patients with poor bone quality and after nonunion.

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Spontaneous Septic Subscapular Abscess: A Case Report

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Objectives: Sepsis of the subscapular space, defined as the area between the subscapularis muscle and the chest wall, is an extremely rare condition. We identified only three previously reported cases in our review of the literature, one of which was fatal because of a delay in recognition. Our case presentation is a healthy thirteen-year-old girl in whom an extensive septic subscapular abscess developed. This particular case is unique in that the abscess developed spontaneously, with no predisposing factor such as penetrating trauma, blunt trauma with formation of a hematoma, or previous infectious condition.
Methods: Clinical presentation, labarotory and radiological findings, initial differential diagnoses, surgical management and

postoperative course were presented.
Results: Staphylococcus aureus was the micoorganism causing the abscess in our index case. .
Conclusion: Subscapular abscess can affect all age groups. It should be suspected in any patient with shoulder symptoms and signs of sepsis. It can be fatal without prompt diagnosis and immediate, aggressive surgical drainage along with appropriate antibiotic therapy.

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The Use of Bone Mineral Density for Prediction of Fractures Susceptibility

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Objectives: The aim of this study was to determine fracture susceptibility among menopausal women, by the use of bone mineral density.
Methods: In a retrospective study, one hundred and eleven postmenopausal women with frequent joints pain were seen in the out patient clinic of the physical and medical rehabilitation department at Prince Rashed Bin Al-Hassan Hospital, Irbid, Jordan, between Jun 2008 and July 2009. Their age ranged from 32-80 years. We obtained thirty five patients with positive history of fractures from hospital records, and seventy six had negative history of fractures. We used receiver operating curve statistical analysis to find the best T-score cut-off value obtained by dual energy X-ray absorptiometry for screening the fracture susceptibility.
Results: The identification of fracture susceptibility is highly sensitive and specific when using the total hip joint bone mineral density T-score ≤ -2.6. The sensitivity was 94.3% (95% confidence interval; 80.8-99.1%), specificity was 97.4% (95% confidence interval; 90.8-99.6%).
Conclusion: Bone Mineral Density of total hip joint bone mineral density T-score ≤ -2.6 seems to strongly suggest the likelihood of fracture susceptibility, and should trigger further investigation, treatment and preventive measures in postmenopausal women.

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Functional Outcome for Patients with Lower Limb Amputation

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Objectives: To assess the functional outcome of the lower limb amputees fitted with prosthesis, to evaluate some of the prognostic determinants of the amputee rehabilitation.
Methods: Patients with lower limb amputations and fitted with were assessed in the prosthetic – Orthotic clinics in the National center During Their visit to the clinic. Two measures of functional outcome were used, (the Russeks classification and the locomotor index
Results: One hundred and one amputees with one hundred and eight amputations were included. Eighty five were males and sixteen were females with a ratio of 5:1, mean age was 48.5 years. trans –tibial amputations were the majority and trauma was the leading cause , The median Russeks classification and median locomotor index scores achieved by the amputees were 4.2 and 32.5 respectively .Males, young age ,trans-tibial,traumatic and amputees wearing prosthesis more than one year were obtained better scores than females ,old age ,trans-femoral , amputees due to diseases and amputees wearing prosthesis less than one year in both functional outcome measures.
Conclusion: The functional outcomes scores of our amputees are considerable .All prognostic determinants evaluated in our amputees were similar with the literature apart of the sex. We recommend further studies to investigate the functional outcome for large group of our amputees' .We recommend enhancing the rehabilitation training program for amputees.

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Tropical Pyomyositis of Short External Rotators of Hip

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Objectives: Tropical pyomyositis is a term used to describe localized bacterial infection of skeletal muscle. The etiology and pathophysiology of this condition are poorly understood. Most patients have no history of penetrating trauma, skin breach or obvious portal of entry but association with blunt trauma has been suggested. The development of tropical pyomyositis after exercise has also been reported emphasizing muscle vulnerability to infection after vigorous activity. Since muscle has an inherent resistance to bacterial infection, it is surmised that alterations in the microenvironment are necessary to initiate the infectious process locally. In a large review of the literature Staphylococcus aureus was found responsible for the infection in over 75% of the cases. The quadriceps, iliopsoas, and gluteal muscles are the most commonly affected muscles but involvement of other muscle groups around the hip joint have been described. This case report introduces a case of a child with pyomyositis of short external rotators of left hip treated surgically at King Hussein Medical Center.
Methods and Results: A previously healthy 11 year old male patient presented to the emergency room with history of fever, nausea and left groin pain of two days duration after vigorous exercise. Physical examination revealed a temperature of 38.7 degrees centigrade. The affected hip was in flexion and abduction with tight and tender adductor compartment. The White blood count was 7.800/microliter, erythrocyte sedimentation rate (ESR) was 60 and C-reactive protein (CRP) was positive. The left hip MRI demonstrated edema and swelling involving the short external rotator muscles group but no localized abscess collection. The muscle group showed significant enhancement at postcontrast study. The diagnosis was settled as pyomyositis and the patient was prepped for surgery. The overlying fascia was opened resulting in immediate expansion of the muscle. No debridement was performed since there was no evidence of pus or non-viable muscle. Gram stain of the fluid was negative for bacteria and white blood cells. The fluid culture grew Staphlococcus aureus. Postoperatively the patient's symptoms resolved rapidly. The patient was discharged home 2 days after surgery on oral clindamycin for three weeks. The patient was back to his activities with no limitations at a two-month follow-up.
Conclusion: Our experience in topical pyomyositis showed that surgical intervention in such a case will lead to dramatic improvement with short hospital stay and rapid return to normal activities in comparison to conservative management. The dramatic and immediate pain relief as well as the lack of evidence of a discrete abscess suggests that locally elevated pressure accounted for the symptoms at that early stage. The use of MRI is very useful diagnostic tool in the diagnosis of tropical pyomyositis.

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Revision Surgery in Developmental Dislocation of the Hip

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Objectives: To look for the causes that led to the failure of the surgically treated cases of developmental dislocation of the hips.
Methods: We analyze the medical records of 28 referred patients, the radiological images, and the intraoperative findings of all surgeries looking for explanation of the cause/s of the redislocation and failure of the surgical treatment.
Results: The average age of the patient at the time of the first surgery was 2.6yrs (range 9mon-4yrs). Open reduction was performed in seven cases. Seventeen cases had an open reduction with pelvic osteotomies. Four cases had triple procedures (open

reduction, pelvic osteotomy and femoral osteotomy). Femoral osteotomy as a secondary procedure done for 7 cases. The result were failure in all cases (severe subluxation or frank redislocation).
Conclusion: In order to avoid the causes of failure, the principles of surgical treatment of DDH, the new difficulties and deformities in older kids should be well understood and treated accordingly.

Hall K Session 1
Nursing

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Estimated of Alcohol Result: A study between 2004 and 2008 at Princess Iman Researches & Laboratory Science

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Objectives: To explore results of the blood alcohol levels carried out on collected samples from suspected drunks tested between 2004-2008.
Methods: Clean the needle site with a non-alcohol solution such as povidone-iodine or antiseptic soap. Samples analyzed (serum or plasma) using CX9 system. The instrument measurement Principle is an enzymatic method. Instrument detects results between 5mg/dl up to 250mg/dl as positive. Results between zero to 5mg/dl are determined as grey area and therefore negative.
Results: A total of 495 samples were tested for alcohol and 314 (63.4%) were positive while 181 (36.6%) were negative. Fourteen samples referred for road traffic accidents were analyzed and seven (50%) of them were positive for alcohol. Five out of 12 hemolyzed samples were positive. Among 246 samples with duration time less than one hour 92 (37.39%) were negative and 154 (62.61%) positive, among 238 samples from one hour to twenty four hours 86 (36%) were negative and 152 (64%) were positive. Eleven samples more than twenty four hours three (27%) were negative eight (73%) were positive.
Conclusion: When large amounts of alcohol are consumed in a short period of time, alcohol poisoning and even death may result. Result in the grey area could be positive or negative depending on time elapsed between drinking alcohol and withdrawal of sample. Stability of the sample was seen to be high with samples of duration time 10 hours-2 days and with Hemolytic samples.

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Hemoglobin H Disease, Associated with Alpha 2GlobinGene PolyAdenylation(AATAAA-AATAAG) Mutation (Three Years Experience at Princess Iman Center for Research and Laboratory Sciences)

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Objectives: To study the molecular genetics of α-thalassemia mutations at Princess Iman Research and Laboratory Sciences Center, and identify the genotype of HbH disease among Jordanian patients.
Methods: In our study 600 EDTA-blood samples from Jordanian patients with suspected α-thalassemia were obtained. Complete Blood Count was performed on sysmex XE-2100. Heamoglobin analysis was performed using High-Performance-Liquid Chromatography (HPLC). DNA samples were prepared and tested for 21 α-globin gene mutation based on GAP PCR and restriction enzyme digestion, followed by agarose gel electrophoresis, and by PCR reverse hybridization method.
Results: Six hundred patients had persistent microcytic, hypochromic anemia and normal iron status as well as normal HbA2 HbF levels. Thirty-three (5.5%) patients had significantly higher levels of HbH ranging 11-25%, 31 (5.2%) had homozygous α polyA1-(αpolyA1α / α polyA1α) HbH disease and 2 (0.3%) patient of HbH remained undefined. The spectrum of α-thalassemia was 42% deletional mutations and 53% were non-deletional α-thalassemia mutations, while 5% were negative for 21 α-thalassemia mutations. In this study we also analysed haematological

data and Hb analysis on patients with HbH disease. Their mean HbF 0.5±0.45, HbA2 1.7%±0.3 and HbH 19%±7.5.Their mean Hb (g/dl), MCV((fl), MCH(pg) were 8.4±2.5, 65±3.5, 21±3,respectively.
Conclusion: The genotypes of α-thalassemia patients were determined and successfully characterized in 95% while 5% remain to be characterized. These findings explained the genetics of α-thalassemia cause types of HbH disease. However, homozygotes for a mutation affecting the poly A1 site of Alpha-2 gene AATAAA—> AATAAG is a common cause of HbH disease in Jordan. The study helps in the prediction of the phenotype severity by identifying the genotype of HbH patients, it can be also applied for the genetic counseling to prospective patients with HbH disease, since in severe cases the need may be arise for prenatal diagnosis.

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The Frequency of Thyroid Dysfunction, Clinical, and Subclinical Hypo-Hyperthyoidism in the North of Jordan

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Objectives: To estimate the frequency of thyroid dysfunction and the frequency of its main classical types.
Methods: The study was conducted between June 2008 and Jun 2009 on 587 patients who attended Prince Rashed Military Hospital in the North of Jordan. The sample's age was one month to 75 years and around a quarter were males (25.9%). The diagnosis of clinical cases of hypothyroidism and hyperthyroidism was made from the laboratory records when Thyroid-stimulating hormone was more than 4.0 mIU/L and less than 0.4 mIU/L of the reference range (0.4-4.0 mIU/L) and those whose serum free thyroxin concentration was outside the reference range (0.8–1.9 ng/dl). For subclinical cases serum free thyroxin concentration was within the normal reference range.
Results: The overall prevalence of thyroid dysfunction was 37.6% (6.6% clinical hypothyroidism, 19% subclinical hypothyroidism, 2.9% clinical hyperthyroidism and 9.1% subclinical hyperthyroidism). Female-to-male ratio was 3.5:1. Thyroid dysfunction was more prevalent above the age of 30 years (22.4%) and less below the age of 30 years (15.2%) (P-value = 0.010).
Conclusion: Thyroid dysfunction seems, to strongly suggest the likelihood of female patients above the age of 30 years and with subclinical hypothyroidism.

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Analysis of Prothrombin 20210 Mutation in Jordanian Thrombotic Patients

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Objectives: To estimate the incidence of prothrombin mutation in Jordanian thrombotic patients by reviewing the coagulation records at King Hussein Medical Center. The prevalence of the different sites of thrombosis was also investigated.
Methods: A total of 4941 thrombotic patients who were referred to the coagulation laboratory for Thrombophilia screening for the period of 2001-2008, were assayed for the G20210A prothrombin (PTH) mutation by Polymerase Chain Reaction.
Results: Of the 4941 patients, 161 (3.4%) (104 females, 57 males) patients were found to have the PTH G20210A mutation. Of the 161 patients, 154 (95.7%) were heterozygotes whereas only seven (4.3%) were homozygotes. Seventy-six patients were diagnosed with deep vein thrombosis, 56 with recurrent abortion, 13 with peripheral vascular disease, 12 with arterial thrombosis and four with pulmonary embolism. All homozygotes had more than one episode of thrombosis
Conclusion: PTH G20210A mutation found to be a common cause of Thrombophilia. Clinically, this mutation manifests as a disruption of the anticoagulation and procoagulation balance in favor of the

latter and may contribute to infertility and hypercoagulability. Most common thrombotic diagnoses found among our patients were deep vein thrombosis, followed by recurrent abortion.

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Evaluation of Plasma Homocysteine Levels in a Selection of Individuals With Methylenetetrahydrofolate Reductase (MTHFR C677T) Mutation and Homocysteine levels

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Objectives:
A 5,10 methylenetetrahydrofolate reductase (MTHFR) genetic variant designated C677T is responsible for diminished activity of MTHFR resulting in higher plasma homocysteine levels hence a predisposition to thrombosis. This study aims to outline the correlation of MTHFR C677T mutation with plasma HCY levels in Jordanian patients based on statistical and analytical data from our coagulation/ chemistry laboratories at King Hussein Medical Center.
Methods: A random selection of 100 patients underwent two phases of screening: (i) MTHFR C677T mutation assayed and detected by Polymerase Chain Reaction and Reverse Hybridization techniques (ii) HCY measured using fully-automated solid-phase two-site chlemiluminescent immunometric assay.
Results: Out of the 100 patients, 82 were MTHFR C677T heterozygotes, of which only seven (8.5%) had elevated HCY levels. The remaining 18 patients are MTHFR C677T homozygotes, 12 (66.6%) of which had elevated HCY levels, whereas, six (7.3%) had normal HCY levels
Conclusion: Consistent with the literature, this study demonstrates that higher HCY levels are mainly reported in individuals with homozygous MTHFR C677T mutation compared to those with a heterozygous mutation. Homozygous individuals with higher HCY levels mostly suffered from recurrent miscarriage and deep vein thrombosis.

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Treatment of Scoliotic Patients with Computer Aided Design -Manufacture System

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Objectives: To compare the effect of Computer Aided Design–Manufacture method with the traditional method in treating scoliotic patients in Royal Rehabilitation Center from the prospective of the prosthetists and orthotists.
Methods: A descriptive research design was used to conduct this study. Eighteen Certified prosthetists and orthotists working in Jordanian Royal Medical Services were asked to compare the effectiveness of Computer Aided Design–Manufacture method versus traditional methods used in treatment of scoliotic patients using a questionnaire developed by the researchers. The questionnaire contained two parts: the first part asked about demographical data and the second part contained 20 items asking about the advantages and disadvantages of Computer Aided Design–Manufacture method versus traditional methods.
Results: The prosthetists and Oorthotists reported that Computer Aided Design–Manufacture system is better than traditional method in dimensions of time (3–5 minutes were needed to prepare the model through Computer Aided Design–Manufacture system, where 90–165 minutes needed by the traditional method). Modifications on the model can be made within 20 minutes using Computer Aided Design–Manufacture method, but 8–18hrs is needed using traditional methods. Making accurate balance analog design in the same volume of the patient's trunk is possible using Computer Aided Design–Manufacture, but it is impossible using traditional methods. Participants reported that the model is more comfortable and light weight (not more than 2kgs) using Computer Aided Design–Manufacture system, whereas much heavier (not less than 15kgs) and uncomfortable when using traditional method of manufacture.
Conclusion: Computer Aided Design-Manufacture system is preferable than traditional method for treating scoliotic patients in terms of time, accuracy, quality, practicality, and comfort for patients. We recommend using Computer Aided Design–Manufacture system in treating scoliotic patients at the Royal Medical Services.

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Reusing the Level-Sensor Holder of the Stöckert S3 Integrated Centrifugal Pump

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Objectives: To devise a way for reusing the single-use adhesive sensor-holder thereby reducing the cost of running the Stöckert S3 Integrated Centrifugal Pump in Queen Alia Heart Centre.
Methods: Manufacturer recommendations that state consumable items for running the machine include a single-use adhesive sensor holder which is used for mounting a level sensor onto an oxygenate of the machine. The method involves modifying the level-sensor into a reusable part instead of a disposable accessory. The sensor holder consists of two parts, an adhesive strip and elastic rectangular shaped part with an embedded conductive piece. Instead of placing the sensor holder directly on the oxygenator after exposing the adhesive part, a transparent type sheet was placed on the adhesive part after which the sensor holder was fixed on the oxygenator using a regular adhesive tape. In this manner the sensor holder is not damaged after removal and can be used many times without the need for replacing it each time the operation was performed. The modified sensor holder was tested on the machine using normal saline instead of blood and was compared with the operation of its original condition.
Results: Results showed that the modified reusable form the sensor holder functioned in exactly the same manner as would the holder in its original condition. Subsequently a significant cut on the cost of running the machine can be achieved when using this method since in the year 2009 alone the number of times this sensor holder was changed has reached approximately 2000 times.
Conclusion: The modified sensor-holder can be used safely as a substitute of its' original disposable form thereby reducing the cost of running the Stöckert S3 Integrated Centrifugal Pump.

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Neonatal bacteremia at Prince Ali Military Hospital; Microbiology and Antibiotic Resistance

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Objectives: To determine the causative agents of neonatal bacteremia, and to study their antimicrobial susceptibility over a two year period at Prince Ali Military Hospital.
Methods: This was a retrospective study, performed between January, 2008 and January 2010 at the Microbiology Section at Prince Ali military hospital. During the study period 2327 blood culture samples were obtained from patients with suspected bacteremia. Conventional methods were used to identify the isolated bacteria. The disk diffusion method was performed to assess their antibiotic susceptibilities.
Results: There were 2327 samples with clinical diagnosis of suspected neonatal bacteremia. Positive blood culture was found in 434 patients (18.6%) 263 (60.6%) males, and 171 (39.4%) females. Coagulase negative staphylococcus was the most common pathogen isolated (68%) with high resistance to commonly used antibiotics. Other microorganisms commonly isolated were Klebsiella, Enterobacter spp, E Coli. Antibiotic susceptibility testing showed a high resistance among the most common pathogens. Resistance to Ticoplanin, Vancomycin, Imipenem, Ciprofloxacin, and Piperacillin-tazobactam was less frequently encountered.

Conclusion: Coagulase negative staphylococcus is a major cause of neonatal bacteremia at our hospital. Emergence of resistant strains to commonly used antibiotics was noted.

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Patients' Opinion on Corneal Donation at King Hussein Medical Center

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Purpose: To examine the awareness of patients at King Hussein Medical Centre about corneal transplant.
Method: A descriptive study was conducted on a convenient sample of seventy eight patients of different age groups at King Hussein Medical Centre. Patients were asked to complete a modified questionnaire by Singh et al. The questionnaire consisted of ten questions regarding corneal transplant with each question having a choice of three possible answers, yes, no and don't know. Chi- square test was used in the data analysis.
Results: Results showed that 97.3% of the sample had previous knowledge of corneal transplant, 98.7% knew that the process of corneal transplants can restore sight to those who need it, 67.9% acknowledge the shortage of donated corneas in Jordan and also that they can register as cornea donors at the Jordan Eye Bank, 62.8% agreed that they will allow the donation of cornea in the case of the death of one of their relatives, 24.4% knew that corneal donation does not cause disfigurement to the donors eye, 29.5% knew that the ideal time for corneal donation is within six hours of death. 11.5% had knowledge of who can be considered as a corneal donor. 5.1% knew the administrative process that must be followed in the case of corneal donation, 5.1% had religious reservations towards corneal donation. In addition, there was a significant association between the educational level and the knowledge of both corneal transplants and the ideal time of corneal donation ($P < 0.5$ %).
Conclusion: The majority of the sample had little knowledge of the administrative process required for corneal donation and are unaware of either the time of donation or the effect of donation on the appearance of the donor's eye. It is recommended that we establish an awareness committee in order to enlighten patients about corneal donation so as to help in restoring sight to those patients who need it

SYMPOSIA

S1
Setting standards in Medicine, Clinical Guidelines Development, audit and service improvement

(Royal College of Physicians)

Royal College of Physicians
Setting higher medical standards

Guests:

- *Dr Jonathan Potter, Clinical Director, Clinical Effectiveness and Evaluation Unit, Clinical Standards Department, Royal College of Physicians, London*
- *Jill Parnham, Director of Operations, National Clinical Guideline Centre, Royal College of Physicians, London*
- *Rhona Buckingham, Manager, Clinical Effectiveness and Evaluation Unit, Clinical Standards Department, Royal College of Physicians, London*

Moderators: *Mohammad Krayyem MD*
Ali Jawad MD
Ala Al-Hersh MD

Liaison Officer:Alaa Al-Hirsh MD
Date: May 4th, 2010
Time:11:30 -13:30
Hall: Hall G
Venue:KHBTCC

Part 1

Delivering high quality health care; the approach within the National Health Service (NHS) in England and the role of the Royal College of Physicians.

The talk will outline; the development of concepts for delivering high quality care within the NHS in England over the past 10 years, the current arrangements for setting and monitoring standards of care and the structures in place to drive improvement in care. It will then review the contribution that the Royal College of Physicians seeks to make through: influencing national policy, education and training, and through improving clinical standards.

Part 2

The National Clinical Guideline Centre (NCGC) was established on the 1st April 2009 and is hosted by the Royal College of Physicians. The NCGC is commissioned by the National Institute for Health and Clinical Excellence (NICE) to write evidence-based guidelines. It is the largest evidence-based guideline centre in the world and has 26 guidelines in progress; 14 guidelines are in development and another 12 topics are due to be published during 2010. In total, 86 guidelines have been published by NICE, with 14 updates and another 20 guidelines currently in development across four centres. The talk will focus on guideline development and methodology by -

- Describing the process used in national guideline development using disease specific examples,
- Outlining the publications and resources available to support guideline development,
- Evaluating the lessons learnt, and to share tips and pitfalls.

The talk aims to share the NCGC experience of developing guidelines including transferability to other countries and the lessons learnt including successes and limitations.

Part 3

The Clinical Effectiveness and Evaluation Unit (CEEU) of the Royal College of Physicians was established in 1999 and now manages a programme of work which includes national comparative clinical audit in six main conditions: Carotid Interventions, Chronic Obstructive Pulmonary Disease,

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Continence care, Falls and Bone Health, Inflammatory Bowel Disease and Stroke. The talk will focus on the development of clinical audit by -

- Defining clinical audit,
- Describing the process used to develop and manage national comparative clinical audit, using disease specific examples to illustrate different methodologies,
- Demonstrating how clinical care can be measured against evidence-based guidelines,
- Outlining publications and resources that are available to support clinical audit.

The talk aims to share the CEEU experience of developing and managing national comparative clinical audit, including lessons learnt and examples of transferability to other countries.

Part 4

How the Royal College of Physicians uses clinical audit to improve standards of care.

The talk will demonstrate how clinical audit data can be used to compare clinical standards between hospitals and can be used to demonstrate changes in standards of care over time. It will then reflect on the methods used by the College to influence standards of care including: feedback and working with local clinical teams, working with managers who are responsible for commissioning and providing health services, working with patients organisations and with the media, providing data for regulatory bodies, and contributing to high level national policy planning through the Department of Health and Parliament.

S2
Surgical Training Symposium

(in Collaboration with RCS Eng)

The Royal College of Surgeons of England

Guests:*John Weston Underwood MD (UK)*
Mr J W Rodney Peyton MD (UK)
Iain Mackay MD (UK)

Moderators: *Laith Abunowar MD*
Husam Faraj MD
Khaldoun Haddadin MD

Liaison Officer: Fawwaz Khammash MD
Date: May 4th, 2010
Time:09:00 - 11:00
Hall: Hall G
Venue:KHBTCC

09:00 - 09:30 115	Formal Surgical Training in the Early Years *John Weston Underwood MD (UK)*
09:30 - 10:00 116	The Essence of Leadership in a Rapidly Changing World *Mr J W Rodney Peyton MD (UK)*
10:00 - 10:30 117	Current Methods of Assessing Surgical Trainees in the UK *Iain Mackay MD (UK)*
10:30 - 11:00	Discussion

S3
World Federation of Hemophilia

Guests: *Assad Haffar MD (Canada)*
Bernadette Garvey MD (Canada)
Flora Peyvandi MD (Italy)
Liaison Officer: *Issam Haddadin MD*
Date: May 4th, 2010
Time:09:00 - 11:00
Hall: Hall D
Venue:KHBTCC

09:00 - 09:20	History of Hemophilia
69	*Assad Haffar MD (Canada)*
09:20 - 09:40	Strategy for
70	Development of Hemophilia Care in Countries with Limited Resources
	Bernadette Garvey MD (Canada)
09:40 - 10:00	Von Willbrand Factor
71	(VWD)
	Flora Peyvandi MD (Italy)
10:00 - 10:20	Complications of
72	Hemophilia
	Bernadette Garvey MD (Canada)
10:20 - 10:40	Rare Bleeding Disorders
73	*Flora Peyvandi MD (Italy)*
10:40 - 11:00	Discussion

S4
Oncology Lunch Time Symposium
Recent Advances in the Management of Breast Cancer
(Sponsored by Roche)

Guest:*Paul Ellis MD (UK)*
Liaison Officer: *Fayeq Mdanant MD*
Moderators:*Hekmat Abdelrazeq MD*
Khalifeh Al-Omari MD
Fayeq Mdanant MD
Date: May 4th, 2010
Time:14:00 - 15:00
Hall:Hall D
Venue:KHBTCC

S5
Lunch Time Symposium
Optimizing RAAS Suppression: Aliskiren "The First Direct Renin Inhibitor"
(Sponsored by Novartis)

Guest:*Nabil Akash MD (Jordan)*
Moderators: *Nabil Akash MD*
Husni Sadeq MD
Date: May 5th, 2010
Time:14:00 - 15:00
Hall:Hall C
Venue:KHBTCC

WORKSHOPS

W01
Basic Surgical Training - Training the Trainers Course (TtT)
(RMS Only)

The Royal College of Surgeons of England

Guest:
Royal College of Surgeons of England (UK)
Liaison Officer:*Fawwaz Khammash MD*
Date: April 30th, 2010
Time: Whole Day
Hall:BEI (Biomedical Engineering Institute)
Venue:KHMC

Training the Trainers aims to build on participant's knowledge of teaching and learning to improve their current practice. This is an interactive course with practical examples throughout. It is unique as it is taught by both a highly skilled surgeon alongside an educator and each course is tailored to meet the needs of the participant.

W02
Basic Surgical Training - Basic Surgical Skills Course (BSS)
(Separate Registration)

The Royal College of Surgeons of England

Guest:
Royal College of Surgeons of England (UK)
Liaison Officer: *Fawwaz Khammash MD*
Date: May 1st – 3rd, 2010
Time: Whole Day
Hall:BEI (Biomedical Engineering Institute)
Venue:KHMC

This Basic Surgical Skill three day course has been designed to introduce surgical trainees to safe surgical practice within a controlled workshop environment and it aims to 'teach, assess and certify' the ability of trainees to use safe and sound surgical techniques that are common to all forms of surgery. It will be delivered at the King Hussein Medical Center by the trainers from both the Royal College of Surgeons of England and Royal Medical Services.

W03
AO CMF, Orthognathic Surgery - From Diagnosis to Planning to the Execution of the Treatment Plan

AOCMF

Guest:*Nick Katsikeris MD (Greece)*
Liaison Officer: *Khaldoun Haddadin MD*
Moderators: *Mutaz Al-Karmi MD*
Khaldoun Haddadin MD
Date: May 3rd, 2010
Time:14:00 - 16:00
Hall: Hall G
Venue:KHBTCC

14:00 – 14:10	Opening Remarks: Introduction to AO CMF *Nick Katsikeris MD*
14:10 – 14:40	Diagnosis of Orthognathic Abnormalities *Nick Katsikeris MD*
14:40 – 15:10	Planning and Execution of Orthognathic Surgery *Nick Katsikeris MD*
15:10 – 15:40	Case Presentations *Khaldoun Haddadin MD*
15:40 – 16:00	Discussion

W04
AO Spine, Scoliosis

AOSPINE

Guest:*Michael Rauschmann (Germany)*
AbdulRazzaq Alobaid (Kuwait)
Liaison Officer: *Firas Husban MD*
Moderators:*Munther Saudi MD*
Kamel Afifi MD
Ziad Zoubi MD
Ziad Odat MD
Firas Al-Husban MD
Date: May 3rd, 2010
Time: 09:00 - 16:00
Hall: Hall H
Venue: KHBTCC

09:00 - 11:00 Session 1

08:50	Opening Remarks Welcome and AO Spine introduction
09:00	Idiopathic Scoliosis: Natural History and Pathology *M Rauschmann MD*
09:15	Clinical and Radiological Assessment of Idiopathic Scoliosis *M Rauschmann MD*
09:30	Clinical Application of Lenke Classification *F Husban MD*
09:45	Treatment of Idiopathic Scoliosis *M Rauschmann MD*
10:00	Is there Need for Anterior Release *Z Odat MD*
10:15	Screws VS Hooks in Spinal Fixation *A Obaidi MD*
10:30	Case Presentation - Idiopathic Scoliosis *F Husban MD*
11:00	Coffee Break

11:30 - 13:30 Session 2

11:30	Assessment of Congenital Scoliosis *A Obaidi MD*
11:45	Treatment of Congenital Scoliosis *A Obaidi MD*
12:00	Case Presentation – Congenital Scoliosis *F Husban MD*
12:30	Assessment of Neuromuscular Scoliosis *M Obeidat MD*
12:45	Treatment of Neuromuscular Scoliosis *M Obeidat MD*
13:00	Case Presentation - Neuromuscular Scoliosis *F Husban MD*
13:30	Lunch

14:30 - 16:00 Session 3

14:30	Sagittal Profile Deformities *M Rauschmann MD*
14:50	Complications in Pediatric Scoliosis Surgery *A Btoush MD*
15:20	Spodylolisthesis in Children *R Kamal MD*
15:40	Case Presentation *F Husban MD*

W05
Orthopedic Surgery
Distal Volar Plates - DVR & Polyaxial Plates
(Sponsored by Al-Wafi Group)

Al-Wafi Group For Marketing & Int'l Trade Co. Ltd. — DePuy a Johnson & Johnson company

Guest: *Alexandre Nehme (Lebanon)*
Liaison Officer: *Isam Dahabra MD*
Moderators: *Shaher Hadidi MD*
Walid Al-Rashid MD
Issam Dahabra MD
Date: May 5th, 2010
Time: 11:30 - 13:30
Hall: Hall J
Venue: KHBTCC

The DVR plate provides stable internal fixation for the treatment of most fractures and deformities of the distal radius
Importance of Restoration of Articular Surface
- 91% of fractures with residual incongruity of radio carpal joint resulted in arthritis
- 11% of fractures without articular incongruity resulted in post-traumatic arthritis. (Knirk, Jupiter, 1986)
- It is imperative that the surgeon obtain anatomic reduction prior to hardware application

anatomically distributed subchondral support pegs secure the distal fragments and robust plate design allows early functional use of the hand

Volar placement prevents tendon problems, preserves dorsal tissues and allows the use of ligamentotaxis to aid reduction Indications
This two hour workshop will compose of two parts:
1- Power point presentation about the products.
2- Hands on workshop on saw bones.

W06
Orthopedic Surgery
ACL Repair
(Sponsored by Al-Wafi Group)

Guest: *Alexandre Nehme (Lebanon)*
Liaison Officer: *Mahmoud Odat MD*
Moderators: *Ziad Khasawneh MD*
Falah Al-Harfoushi MD, Issa Sawaqed MD
Date: May 5th, 2010
Time: 15:00 - 18:30
Hall: Hall J
Venue: KHBTCC

The RIGIDFIX ® ACL Cross Pin System for Mitek is an innovative method for fixing soft tissue grafts during ACL reconstruction. The RIGIDFIX Cross Pin System was developed with three goals in mind:

1. TO PROVIDE BIOABSORBABLE (PLA) FIXATION, COMPRESSION & SUSPENSION AT THE GRAFT-TUNNEL INTERFACE.
2. TO DELIVER 360° OF BONE-TO-GRAFT CONTACT.
3. TO EXPEDITE SURGERY.

This 3.30 hours workshop will composed of two part:

1- 1 hour Power point presentation (F&B) ST ets.
2- hands on workshop

W07
General Surgery
Laparoscopic Liver Resection
(Live Surgery)

Guest:*Ameet Patel (UK)*
Liaison Officer: *Salah Halaseh MD*
Date: May 3rd, 2010
Time: Whole Day
Hall:PHA (Prince Hamzah Auditorium) Live Transmission from OR
Venue:KHMC

This is a whole day workshop with live transmission of laparoscopic procedures for liver resection from theatre to the auditorium with open discussion between the audience and surgeons.

W08
General Surgery
Laparoscopic Hernia Repair
(Live Surgery)
(Sponsored by Development Medical Supplies)

Guest:*Tim Tollens (Belgium)*
Liaison Officer: *Amer Amireh MD*
Date: May 3rd, 2010
Time: Whole Day
Hall:PHA (Prince Hamzah Auditorium) Live Transmission from OR
Venue:KHMC

Hernias surgical repair have been revolutionized by the introduction of meshes and laparoscopy in all types of hernias including incisional and diaphragmatic hernias. This is a whole day workshop of hernia repair procedures using different types of meshes and laparoscopy in certain cases, live transmission from theatre to the auditorium with open discussion between the audience and surgeons.

W09
General Surgery
Laparoscopic Colorectal Surgery
(Live Surgery)
(Sponsored by Development Medical Supplies)

Guest:*Tim Tollens (Belgium)*
Liaison Officer: *Amer Amireh MD*
Date: May 4th, 2010
Time:Whole Day
Hall: Hall F - Live Transmission from KHMC OR
Venue:KHBTCC

A whole day workshop of live laparoscopic colorectal procedures including rectopexy and colectomies, there will be live transmission of the procedures from King Hussein hospital theater to King Hussein bin Talal Convention Center with open discussion between the audience and surgeons.

5th International Conference of The
Royal Medical Services

W10
Pediatric Surgery
Minimally Invasive Surgery in Children
(Live Surgery)

Guest: *Monther Haddad (UK)*
Liaison Officer: *Imad Habaibeh MD*
Date: May 2nd and 5th, 2010
Time: Whole Day
Hall: QRPH (Queen Rania Pediatric Hospital) Live Transmission from OR
Venue: KHMC

This is a two day workshop, that would cover various laparoscopic and thoracoscopic operations in pediatric age group such as; lung lobectomy oesophageal resection anastomosis, diaphragmatic placation, nissen fundoplication, choledocal cyst excision, pull through for HPD or imperforate anus, proctocolectomies and other procedures that could be managed by thoracoscopy or laparoscopy, of course; not all the above mentioned cases would be done in 2 days but the selection of cases would be dependent on their availability at the time of the workshop.

W11
Vascular Surgery
Total Occlusion Recanalization in Critical Limb Ischemia *(Live Surgery)*

Guest: *Mark Farber (USA)*
Liaison Officer: *Fayeq Haddadin MD*
Date: May 2nd, 2010
Time: Whole Day
Hall: Cath Lab
(Catheterization Laboratory)
Venue: KHMC

Aim:

- To show the new development in evaluation and management of patients with abdominal aortic aneurysm with endovascular technique
- To highlight the criteria of selection of patients for this procedure
- To discuss the potential pitfalls and complications

W12
Vascular Surgery
Endovascular Stent Graft for Abdominal and Thoracic Aneurysms *(Live Surgery)*

Guest: *Mark Farber (USA)*
Liaison Officer: *Hazem Habboub MD*
Date: May 3rd, 2010
Time: Whole Day
Hall: Cath Lab (Catheterization Laboratory)
Venue:KHMC

Aim:

- Evaluation of patients with critical and non-critical limb ischemia candidates for this procedure.
- To establish criteria for patients that benefit from occlusion recanalization
- To show the efficacy in recanalization of long segment occlusion with atherectomy

W13
Obstetrics & Gynecology
Laparoscopic Gynecology Surgery
(Live Surgery)

Guest: *Hans-Rudolf Tinneberg (Germany)*
Liaison Officer: *Zeyad Shraideh MD*
Date: May 2nd, 2010
Time: 09:00 - 16:00
Hall: Gyn OR (Gynecology Operating Theater)
Venue: KHMC

- Hands on training and live surgery on range of cases need laparoscopic intervention in gynecology.
- Cases will include laparoscopic assisted vaginal hysterectomy, ovarian cystectomy, tubal surgery, and management of pelvic masses.
- Training will include basic laparoscopic surgical skill as well as dealing with complicated cases.

W14
Obstetrics & Gynecology
Urogynecology *(Live Surgery)*
(Sponsored by Development Medical Supplies)

ETHICON Women's Health & Urology

Guest:**Uwe Torsten (Germany)**
Liaison Officer: *Rami Shwayyat MD*
Date: May 3rd, 2010
Time:09:00 - 15:00
Hall: Gyn OR (Gynecology Operating Theater)
Venue:KHMC

- Hands on training and live surgery on range of urogyncology procedures.
- Cases will include sling procedures (TVT and TVTO), vaginal repair surgery, vaginal hysterectomy, and mesh surgery for vaginal and uterine proplase.
- Training will include basic surgical procedures as well as dealing with complicated cases.

W15
Obstetrics & Gynecology
Fetal Ultrasound
(Sponsored by General Electric)

Guest: *George Haddad (France)*
Liaison Officer: *Maher Maaytah MD*
Date: May 4th, 2010
Time: 09:00 - 16:00
Hall: PHA (Prince Hamzah Auditorium)
Venue: KHMC

- Hands on training and live scanning on range of fetal medicine cases and normal pregnancies.
- Cases will include early pregnancy scanning, nuchal thickness, fetal anomalies, and growth scans.
- Training will include normal pregnancies and abnormal cases.

W16
Obstetrics & Gynecology
Hysteroscopic Surgery *(Live Surgery)*
(Sponsored by Development Medical Supplies)

ETHICON Women's Health & Urology

Guest: *Ossama Shawki (Egypt)*
Liaison Officer: *Khaldoun Khamaeseh MD*
Date: May 6th, 2010
Time: 09:00 - 16:00
Hall: Gyn OR (Gynecology Operating Theater)
Venue: KHMC

- Hands on training and live surgery on range of hysteroscopy surgery.
- Cases will include hysteroscopy resection of fibroids, polyps, and endometrial resection of both endometrium and septum.
- Training will include basic hysteroscopy surgical skill as well as dealing with complicated cases.

W17
ENT
Functional Endoscopic Sinus Surgery (FESS) *(Live Surgery)*
(Sponsored by Jordan Medicare)

STORZ KARL STORZ–ENDOSKOPE JORDAN MEDICARE CORP.

Guest: *Reda Kamel (Egypt)*
Liaison Officer: *Sami Jmaian MD*
Date: May 3rd, 2010
Time: Whole Day
Hall: PH (Physiology Hall) Live Transmission from OR
Venue: KHMC

A live transmission of surgery involving various endoscopic endonasal procedures with special highlights on Functional Endoscopic Sinus Surgery (FESS), nasal polypectomy, as well as repair of CSF-leak.

W18
ENT
Otolgy & Neuro-Otology *(Live Surgery)*

Guest: *Michael McGee (USA)*
Liaison Officer: *Sami Jmaian MD*
Date: May 5th, 2010
Time: Whole Day
Hall:PH (Physiology Hall) Live Transmission from OR
Venue:KHMC

A live transmission of surgery involving various procedures of Otology, Neuro-Otology and Skull Base Surgery .Our cases include cochlear implants, temporal bone apex lesions, vascular lesions, Facial nerve lesions , and ossiculopasty.

W19
Ophthalmology
Management of Uveitic Cataract
(Live Surgery)

Guest:*Teifi James (UK)*
Liaison Officer: *Fareed Zawaydeh MD*
Date: May 2nd, 2010
Time:08:00 - 14:00
Hall: Ophth Dep (Ophthalmology Department)
Venue:KHMC

Operating on eyes with history of uveitis is a great challenge to ophthalmologists. It needs good pre-operative planning and meticulous surgical technique. In this workshop, we will present the cases of 4 patients with uveitic cataract of different etiologies.
Each case presentation will be followed by discussion and a live surgery which will be transmitted real-time to the audience.

W20
Emergency Medicine & Cardiology
Non Lethal Dysrhymthias

Guest:*Stephen Bohan (UK)*
Liaison Officer: *Suleiman Al-Abbadi MD*
Date: May 2nd, 2010
Time:10:00 - 12:00
Hall:PHA (Prince Hamzah Auditorium)
Venue:KHMC

This case based workshop will focus on common abnormal rhythms, for both diagnosis and treatments. Some treatments, for SVT for example are quite straight forward but management of atrial fibrillation, which is becoming epidemic, is much less straight forward. Audience participation is expected.

W21
Dermatology
Fillers in Dermatology

Guest: *Hassan Galadari (UAE)*
Liaison Officer: *Isam Omeish MD*
Date: May 3rd, 2010
Time: 12:00 - 13:30
Hall: KHHL
(King Hussein Hospital Library Hall)
Venue: KHMC

Live filler injection technique to different facial structures can be demonstrated and discussed. This can utilize multiple filler material, with emphasis on the correct methodology to avoid complications and pitfalls.

W22
Gastroenterology & Community Medicine
National Consensus on Hepatitis B & C

Guest: *Mostafa Mohamad (Egypt)*
Liaison Officer: *Malek Dabbas MD*
Date: May 3rd, 2010
Time: 09:00 - 13:00
Hall: Hall F
Venue: KHBTCC

The joint workshop (Gastroenterology and Community Medicine Departments in the RMS) and the Guest speaker Dr Mostafa Mohamad highlight:

- National Egyptian Strategy for managment of Hepatitis B &C
- National Jordanian Strategy for managment of Hepatitis B &C
- Epidemiology of Hepatitis B&C in both countries

W23
Pediatric Cardiology
Intervention in Pediatric Cardiology
(Live Procedures)

Guest: *Ziyad Hijazi (USA)*
Liaison Officer: *Awni Madani MD*
Date: May 2nd - 3rd, 2010
Time: Whole Day
Hall: QAHI (Queen Alia Heart Institute)
Venue: KHMC

The Workshop includes:

- Stenting of branch pulmonary arteries
- Stenting of Coarctation of the aorta.
- Atrial septal defects closure with devices
- Closure of fenestrated lateral tunnel with devices
- Closure of coronary artery fisulas with devices

W24
Physical Medicine &Rehabilitation
Management of Spasticity in Stroke Patients

Guest: *Murray Brandstater (USA)*
Liaison Officer: *AbdelFattah Wraikat MD*
Date: May 3rd, 2010
Time:09:00 - 13:00
Hall:NCAR (National Center for Amputee Rehabilitation)
Venue:KHMC

This session will provide participants with some guidelines for evaluating patients who have had a recent stroke. A series of cases will be presented that will give examples of patients with commonly encountered neurological deficits and clinical problems. It will be an interactive session in which the members of the audience will discuss debate and try to answer the question: "Is this patient a good rehabilitation candidate?"

W25
Physical Medicine &Rehabilitation
Meso-Therapy for Facet Syndrome & for Knee Orthosis

Guest: *Philippe Petit (France)*
Liaison Officer: *AbdelFattah Wraikat MD*
Date: May 6th, 2010
Time:09:00 - 13:00
Hall:NCAR (National Center for Amputee Rehabilitation)
Venue:KHMC

Treatment of back pain and other joints like shoulder and knee by injection technique in the mesoderm, this procedure will be demonstrated on patients, followed by open discussion between the audience and the lecturer.

W26
Orthodontics
Clinical Aspects & Procedures Regarding Treatment with Mandibular Advancement Device

Guest: *Mahmoud Escafi (Sweden)*
Liaison Officer: *Manhal Rashdan MD*
Date: May 3rd, 2010
Time:09:00 - 12:30
Hall:Hall K
Venue:KHBTCC

The workshop will reflect the previous lecture concerning the clinical examinations methodic, preparation and designing for manufacturing of the individual dental device.

09:00 - 10:30	Demonstration in clinical examination & jaw registration 1)Case history 2)Examination a)Dental i)Intraoral ii)Radiographic b)Temporomandibular i)Functions & dysfunction in TMJ & Jaw ii) Measurement of mandibular movement and jaw relation 3)Choose and designing of the device. Bite registration
10:30 - 11:00	Coffee Break
11:30 - 12:30	Individual training. The participates exercise in pairs

W27
Oral & Maxillo-Facial Surgery
Maxillo-Facial Trauma Course

Guest: *Mohamed Maaytah (UK)*
Liaison Officer: *Zuhair Mhaidat MD*
Date: May 3rd, 2010
Time: 09:00 - 12:30
Hall: Hall G
Venue: KHBTCC

9:00-11:00	Introduction Dentoalveolar Injuries Mandibular Fractures Condylar Injuries Rigid Internal Fixation Maxillary Fractures Zygomatic Fractures Orbital Injuries
11:00-11:30	Coffee Break
11:00-12:30	Ophthalmic Injuries Nasal and Naso-Ethmoid Injuries Gunshot Injuries Head Injuries Paediatric Cranio-Maxillo-Facial Injuries
12:30-14:00	Lunch

Introduction:
Basic principles, Clinical features of maxillofacial injuries, Radiographic investigations of maxillofacial injuries, Principles of management, General principles of fracture treatment, Complications of maxillofacial trauma

Dentoalveolar Injuries:
Applied dental anatomy, Epidemiology, Classification, Clinical assessment, Treatment

Mandibular Fractures:
Surgical anatomy, Classification, Clinical features, Treatment, Postoperative care, Complications

Condylar Injuries:
Categories of condylar injuries, Classification of condylar fracture, Applied surgical anatomy, Clinical features, Treatment, Specific management of special cases, Complications of condylar injuries, Treatment of dislocations

Rigid Internal Fixation:
Historical, Advantages, Indications,

Contraindications, Need for additional intermaxillary fixation, Limitations, Complications, Failure of RIF, Removal of RIF, RIF techniques, Materials for osteosynthesis, New systems

Maxillary Fractures:
Applied surgical anatomy, Classification, Alternative classification, Clinical features of midface fractures (le Fort II, III), Surgical treatment planning, Treatment of maxillary fractures, Complications of major maxillary fractures, Rehabilitation

Zygomatic Fractures:
Applied surgical anatomy, Classification of zygomatic fractures (Henderson, 1973), Clinical features, Historical review, Non-surgical management, Surgical intervention, Surgical approaches to the zygoma, Stability of zygomatic fractures, Methods of stabilisation

Orbital Injuries:
Surgical anatomy, Clinical features, Blowout fractures, Investigations, Treatment of orbital floor fractures, Surgical approach to orbital floor, Orbital floor grafts, Antral packing, Postoperative considerations, Complications of orbital fractures

Ophthalmic Injuries:
Ocular injuries associated with midfacial fractures, Direct trauma to the globe, Referral to ophthalmologist, Management protocol, Diplopia, Types of diplopia, Assessment of diplopia, Management of diplopia, Prognosis of diplopia

Nasal Injuries:
Surgical anatomy, Classification, External examination, Intranasal examination, Treatment

Naso-ethmoidal Injuries:
Surgical anatomy, Classification, Clinical features, Treatment

Gunshot Injuries:
Dynamics of gunshot injuries, Primary management of gunshot casualties, Primary surgical management, Secondary reconstructive surgery

Head Injuries:
Scalp injuries, Types of head injuries, Assessment of head injuries, Management of head injuries, Complications of head injuries
Paediatric Cranio-Maxillo-Facial Injuries

W28
Endodontic Dentistry
Key Skills for Successful Root Canal Treatment

(Separate Registration)

Guest:*Kishor Gulabival (UK)*
Yuan-Ling Ng (UK)
Liaison Officer: *Nader Masarweh MD*
Date: May 3rd, 2010
Time:09:00 - 13:30
Hall:Hall I
Venue:KHBTCC

9:00-11:00	•Canal Preparation •Root canal preparation •Practice curvature and diameter gauging •Canal preparation using the Stepdown approach with stem-winding of stainless steel instruments •Canal preparation using Stepdown approach with manual NiTi instruments
11:00-11:30	Coffee Break
11:30-13:30	•Canal Obturation •Canal obturation using cold lateral compaction (CLC) with customized master gutta-percha cone •Canal obturation using CLC, supplemented with warm vertical compaction •Canal obturation using CLC, supplemented with thermo -compaction
13:30-14:00	Lunch

This pre-conference course will focus on improvement of key skills in root canal treatment. The aim will be to demonstrate and enable each participant to individually identify their current root canal treatment problems and to resolve them by learning about the principles of curvature, taper, irrigation and apical root filling placement control. The techniques will be shown to the participants, who will also practice them on simulated root canals to achieve progression.

Canal Preparation:
1- Root canal preparation on masked Endo Vu block with stainless steel files using a technique of participants choice.
2-Practice curvature and diameter gauging (tactile sense, scouting and mental imaging).
3-Demonstration and practice of canal preparation using the Stepdown approach with stem-winding of stainless steel instruments.
4-Demonstration and practice of canal preparation using Stepdown approach with manual NiTi instruments (Hand ProTaper).

Canal Obturation:
1-Demonstration and practice of canal obturation using cold lateral compaction (CLC) with customized master gutta-percha cone.
2-Demonstration and (selected) practice of canal obturation using CLC, supplemented with warm vertical compaction for effective back-filling (equipment permitting).
3-Demonstration and (selected) practice of canal obturation using CLC, supplemented with thermo-compaction by ultrasonically-energized spreaders for effective back-filling (equipment permitting).

W29
Implant Dentistry
Dental Implant & Sinus Lift Training

Guest:*Nahi Jabbour (Switzerland)*
Liaison Officer: *Yousef Shmailan MD*
Date: May 4th, 2010
Time:11:30 - 19:00
Hall: Hall K
Venue:KHBTCC

11:30-1:30	Current trend and improvements in Dental Implantology New Swiss Implant Generation and Immediate loading concept Guided bone Regeneration and Sinus Grafting
13:30-15:00	Lunch
15:00-17:00	Lecture and Hands-on Training on Surgical Aspects of the SPI System. Sinus lift procedures wih SPI Swiss Precision Implant
17:00-17:30	Coffee Break
17:30-19:00	Workshop and Hands on Training Sinus lift Model and Surgical Procedure of the Swiss Precession Implant System
19:00	Closing

W30
Pharmaco-Economics
Approach to Pharmaco-Economics

Guest: *Michael Drummond (UK)*
Liaison Officer: *Wafa' Al-Nsour MSc. Pharm*
Moderators: *Khalil Bajes BSc Pharm*
Rania Bader MSc.Pharm
Date: May 3rd, 2010
Time: 09:00 - 15:00
Hall: Hall J
Venue: KHBTCC

The Changing Landscape of Health Technology Assessment

Professor Michael F Drummond,
Professor of Health Economics / Centre for Health Economics University of York York, UK.

Health technology assessment (HTA) is a dynamic, rapidly evolving process, embracing different types of assessments that inform real-world decisions about the value (i.e., benefits, risks, and costs) of new and existing technologies. Historically, most HTA agencies have focused on producing high quality assessment reports that can be used by a range of decision makers. However, increasingly organizations are undertaking or commissioning HTAs to inform a particular resource allocation decision, such as listing a drug on a national or local formulary, defining the range of coverage under insurance plans, or issuing mandatory guidance on the use of health technologies in a particular healthcare system. This presentation examines recent developments and discusses what can be learned from experience in other jurisdictions. In particular, a set of fifteen principles that can be used in assessing existing or establishing new HTA activities is proposed, providing examples from existing HTA programmes. The principles are organized into four sections: (i) "Structure" of HTA programmes; (ii) "Methods" of HTA; (iii) "Processes for Conduct" of HTA; and (iv) "Use of HTAs in Decision Making."

8:30 - 9:00	Registration
Session One:	
9:00 - 11:00	The Changing Landscape of Health Technology Assessment *Prof. Michael Drummond PhD/UK*
11:00 - 11:30	Coffee Break
Session Two: The Role and Importance of Health Economics in Jordan	
11:30 - 12:00	Basic Concept of PEs Evaluations *Ibrahim Al abbadi PhD / Jordan*
12:00 – 12:30	The Role of Pharmacist in Achieving Optimal PEs Outcomes *Ayman Al Momani PhD / Jordan*
12:30 – 13:00	Applying PEs to Develop Treatment Guidelines *Nour Obeidat PhD/Jordan*
13:00 - 13:30	Open Discussion
13:30 - 15:00	Lunch

W31
Clinical Pharmacy
Pharmacist Medication Therapy (MTM) services experience in the USA

Guest: *Roger Klotz (USA)*
Liaison Officer: *Wafa' Al-Nsour MSc. Pharm*
Moderator: *Emad Nsour MSc.Pharm*
Layla Jarar BSc Pharm
Mohannad Al- Haj MSc.Pharm
Lama Al- Hmoud BSc Pharm
Date: May 4th, 2010
Time: 09:00 - 18:30
Hall: Hall J
Venue: KHBTCC

Pharmacist Medication Therapy Management (MTM) Services in the United States

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Assistant Professor of Pharmacy Practice and Administration
Western University of Health Sciences College of Pharmacy (USA)

5th International Conference of The
Royal Medical Services

This workshop will define and discuss the reasons that the United States Congress in the Medicare Modernization Act of 2003 created a prescription benefit program for seniors and why it include reimbursement for pharmacist Medication Therapy Management (MTM) as part of the benefit. The key issues and factors that led to the creation of this benefit as well as providing definitions of MTM services will be presented. The implications of MTM services to patients who are not eligible of Medicare will also be discussed. The details of providing MTM services and creating the necessary documentation to assure that the patient's therapy is modified when necessary.
The key points will be presented by the workshop leader at the beginning of the workshop in an outline of the discussion that is to follow. A key point and its associated concepts will be discussed and then the speaker will seek audience participation via answering of the audience's questions and the audience's discussion of the key points and concepts from the stand point of the practicalities and benefits of providing these services. Discussion will also deal with the necessary steps needed for the implementation of MTM services/programs. Audience participation is important to the success of the workshop in that their input will help the workshop leader to understand the needs of the audience and also understand the basic health care service approach in the audience's environment. The discussion will also allow for the estimation of the benefits to the patients and the Royal Medical Services. This will allow for development of thoughts as to how this benefit could be implemented by the audience in their practice site.

8:30 - 9:00	Registration
Session One:	
9:00 - 11:00	Pharmacist Medication Therapy Management (MTM) services experience in the United States. (Part I) Roger Klotz Pharm D / USA
11:00 - 11:30	Coffee Break
Session Two:	
11:30 - 12:15	Pharmacist Medication Therapy Management (MTM) services experience in the United States. (Part II) Roger Klotz Pharm D / USA
12:15 - 12:30	Open Discussion.
12:30 - 13:30	Role of clinical Pharmacist in ambulatory care- A model of collaborative work between pharmacist & Physician (Part I) Albsoul-younes PhD / Jordan
13:30 - 15:00	Lunch Break
Session Three:	
15:00 - 15:45	Role of clinical Pharmacist in ambulatory care- Anti coagulation clinic (Part II) Linda Tahyneh Pharm.D /Jordan
15:45 - 16:00	Open Discussion
16:00 - 17:00	Evidence Based pharmaceutical care- (Part I) Salah Abu Alrouz PhD / Jordan
17:00 - 17:30	Coffee Break
Session Four:	
17:30 - 18:15	Evidence Based pharmaceutical care- (Part II) Salah Abu Alrouz PhD / Jordan
18:15 - 18:30	Open Discussion

W32
Nursing
Caring for Older Adults: Evidence-Based Practice in 2010

Guest:*Patricia Higgins RN PhD (USA)*
Liaison Officer: *Hala Obiedat PhD RN*
Date: May 5th, 2010
Time:11:30 - 13:30
Hall: Hall K
Venue:KHBTCC

The aging of the world population is a well-known phenomenon. In Jordon, for example between 1970 and 2007, life expectancy at birth increased by almost 20 years, with the average life expectancy now 72.5 years (70.8 years for males; 74.5 years for females).
Given the increasing numbers of older adults and their particular health care challenges, this two-part presentation will first provide a review of evidence-based practices associated with the goals of maintaining older adults' level of functioning and improving their quality of life of. Using a systems-based review, the speaker will first discuss evidence-based practices related to older adults' physiological health, including markers of aging beyond chronological age and the common diseases of dementia, diabetes, and cancer; physical functioning, including the common physical performance tests; and psychosocial health, including data related to older adults' psychological well-being and their social environments.
In the second part, the speaker will use case examples of completed research and published articles in a review of how to critique the usefulness of evidence related to health-care of the older adult. Using multidisciplinary perspectives, we address the question, "Is the evidence in the reported study relevant and sufficient to be incorporated into my clinical practice?" Topics to be addressed include evaluation of the design and sampling frame and methods and analyses associated with different research approaches.

W33
Nursing
Magnet Hospitals: A Strategic Platform for Quality

Guest: *Linda Aiken RN PhD (USA)*
Liaison Officer: *Mona Nsour PhD RN*
Date: May 5th, 2010
Time: 15:00 - 17:00
Hall: Hall K
Venue: KHBTCC

This workshop aimed at orienting the registered nurses to the process of accrediting magnet hospitals, in which the Hospitals must submit significant documentation to show how they implement excellence in nursing care. There are areas that are assessed as part of determining whether a hospital deserves magnet designation. These include quality of nurse leadership, perception of the value of nursing by other health professionals, compensation and fringe benefits for nurses, quality of care, dedication to quality improvement, level of education and teaching offered to incoming nurses or students, and management style. Magnet hospital tends to attract and retain nurses who are skilled at their jobs and who get adequate support from management and other staff. These hospitals are also more likely to have a higher nurse to patient ratio, and may experience a lower percentage of human error in nursing care.

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